

Math. P.

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4 Math. J.
393^m

Westphal

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Logarithmische
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Einrichtung und Gebrauch der Tafeln.

I. T a f e l.

I.

Diese Tafel enthält die Briggischen Logarithmen aller ganzen Zahlen zwischen 1 und 10000 mit fünf, von 10000 bis 10800 mit sechs Decimalstellen, jedoch ohne Kennziffer. Auf der ersten Seite finden sich die Zahlen von 1 bis 420 und die zugehörigen Logarithmen unmittelbar neben einander; von der folgenden Seite an bis zu Ende ist aber die Tafel mit doppelten Eingängen versehen. Die Columnne o enthält den Logarithmen der in der Columnne N. in derselben Zeile befindlichen Zahl, die Columnnen 1, 2, 3, ... 9 aber enthalten die Logarithmen einer Zahl, welche gefunden wird, wenn man an die in der Columnne N. in derselben Zeile befindliche Zahl die Ziffern 1, 2, 3 9 zur Rechten anhängt. Von diesen letztern Logarithmen sind aber nur die drei letzten Decimalstellen gegeben, indem man die beiden ersten, die für eine Menge auf einander folgender Logarithmen dieselben bleiben, in der Columnne o findet; wenn hier der Raum leer ist, so gelten die zunächst oberhalb stehenden Ziffern, und nur dann nimmt man die zunächst unterhalb stehenden, wenn vor den schon gefundenen drei letzten Decimalstellen ein Sternchen sich befindet. Die Columnne P. P. giebt die Proportional-Theile für die fünfte Ziffer einer gegebenen Zahl und zwar beziehen sich die Ganze dieser Proportional-Theile auf die letzte Decimalstelle der Logarithmen.

Jede Seite enthält außerdem die Verwandlung der Zahlen in der Columnne N. in Grade, Minuten und Secunden, nachdem ihnen eine Null zur Rechten angehängt und sie als Secunden betrachtet worden. Hängt man statt der Null eine andere Ziffer zur Rechten an, so muß man zur gefundenen Anzahl von Graden, Minuten und Secunden so viele Secunden addiren, als der Werth jener angehängten Ziffer beträgt.

Die außerhalb der Einfassung jeder Seite befindlichen Zahlen N. und L. sind die Anfangsziffern der ersten Zahl der Seite und ihres Logarithmen; sie erleichtern das Aufschlagen des Logarithmen.

Die Erklärung der Zahlen S, T, V und der Columnne Corr. steht Seite IX.

2.

Zu einer gegebenen ganzen Zahl den Briggschen Logarithmen mit fünf Decimalstellen zu finden, muß man drei Fälle unterscheiden: ob die gegebene Zahl zwischen 1 und 420, oder zwischen 420 und 10000 fällt, oder ob sie größer ist als 10000. Im ersten Falle findet sich auf der ersten Seite der Logarithme unmittelbar neben der Zahl und es ist nur noch die gehörige Kennziffer beizufügen. Z. B.:

$$\log 8 = 0,90309$$

$$\log 91 = 1,95904$$

$$\log 397 = 2,59879$$

Im zweiten Falle sucht man dieselbe mit Ausschluss der letzten Ziffer zur Rechten in der Columnne N; dann finden sich in derselben Zeile zu Anfange der Columnne 0 die beiden ersten, in der mit der letzten Ziffer bezeichneten Columnne aber die drei letzten Decimalstellen des Logarithmen, denen zusammen genommen nur noch die Kennziffer vorzusetzen ist, um den gesuchten Logarithmen vollständig zu haben. Z. B.:

$$\log 1324 = 3,12189$$

$$\log 3084 = 3,48911$$

$$\log 3637 = 3,56074$$

Im dritten Falle bestimmt man für die vier ersten Ziffern zur Linken in der gegebenen Zahl den Logarithmen wie vorher, jedoch ohne Kennziffer; dann sucht man die Differenz zwischen diesem Logarithmen und dem nächstfolgenden der Tafel, und für diese Differenz in der Columnne P. P. den Proportional-Theil für die fünfte Ziffer der gegebenen Zahl, der zu dem vorhergefundenen Logarithmen addirt wird. Wenn die Zahl aus mehr als fünf Ziffern besteht, so nimmt man für die sechste Ziffer den zehnten Theil, für die siebente den hundertsten Theil des angegebenen Proportional-Theils und addirt dieselben gleichfalls zum vorher gefundenen Logarithmen; die achte und die folgenden Ziffern (gewöhnlich auch schon die siebente) haben keinen Einfluss mehr auf die Proportional-Theile. Dem auf diese Weise erhaltenen Logarithmen wird die gehörige Kennziffer vorgesetzt, um den vollständigen Logarithmen zu haben. Z. B.:

Um $\log 89038$ zu finden, hat man

$$\begin{array}{rcl} \log 8903 & = & \dots, 94954 \\ \text{Prop. Th. für die 5te Ziffer } 8 & = & 4 \text{ bei der Differenz } 5 \\ \hline \text{also } \log 89038 & = & 4, 94958 \end{array}$$

Ebenso ist für $\log 786537$

$$\begin{array}{rcl} \log 7865 & = & \dots, 89570 \\ \text{Prop. Th. für die 5te Ziffer } 3 & = & 1, 5 \\ \text{— — — — 6te — } 7 & = & 0, 3 \end{array} \left. \vphantom{\begin{array}{rcl} \log 7865 & = & \dots, 89570 \\ \text{Prop. Th. für die 5te Ziffer } 3 & = & 1, 5 \\ \text{— — — — 6te — } 7 & = & 0, 3 \end{array}} \right\} \text{ bei der Differenz } 5$$

$$\text{also } \log 786537 = 5, 89572$$

Endlich ist für $\log 2345685$

$$\begin{array}{rcl} \log 2345 & = & \dots, 37014 \\ \text{Prop. Th. für die 5te Ziffer } 6 & = & 11, 4 \\ \text{— — — — 6te — } 8 & = & 1, 5 \\ \text{— — — — 7te — } 5 & = & 0, 1 \end{array} \left. \vphantom{\begin{array}{rcl} \log 2345 & = & \dots, 37014 \\ \text{Prop. Th. für die 5te Ziffer } 6 & = & 11, 4 \\ \text{— — — — 6te — } 8 & = & 1, 5 \\ \text{— — — — 7te — } 5 & = & 0, 1 \end{array}} \right\} \text{ bei der Differenz } 19$$

$$\text{also } \log 2345685 = 6, 37027$$

Die Auffindung der Logarithmen der gewöhnlichen Brüche und der Decimalbrüche läßt sich bekanntlich auf die Auffindung der Logarithmen ganzer Zahlen zurückführen.

3.

Um zu einem Briggischen Logarithmen mit fünf Decimalstellen die zugehörige Zahl zu finden, sucht man in der Columne 0 die beiden ersten Decimalstellen des Logarithmen; finden sich die drei letzten ebendasselbst, so ist die in der Columne N. stehende Zahl die gesuchte, wo nicht, so suche man dieselben in den Columnen 1, 2, 3 9 entweder in der nämlichen Zeile oder in den nächstfolgenden, oder auch in den mit Sternchen bezeichneten Stellen der vorhergehenden. Aus derjenigen Zeile, in welcher man die Ziffern findet, schreibe man die in der Columne N. befindliche Zahl ab, indem man ihr zur Rechten diejenige Ziffer beifügt, mit welcher die die drei letzten Decimalstellen enthaltende Columne bezeichnet ist. Bei der auf diese Weise gefundenen Zahl, sondert man, wenn die Anzahl der Ziffern in der gefundenen Zahl der Kennziffer des gegebenen Logarithmen nicht entspricht, entweder die Ganzen von dem Decimalbruche durch ein Comma ab, oder fügt Nullen den gefundenen drei oder vier Ziffern an, um die dem Logarithmen entsprechende Zahl zu erhalten. Z. B.:

$$\begin{array}{rcl} \text{num. } \log 2,77305 & = & 593 \\ \text{num. } \log 1,69329 & = & 49, 35 \\ \text{num. } \log 5,74076 & = & 550500 \end{array}$$

Gewöhnlich wird man die drei letzten Decimalstellen des Logarithmen in keiner Columne antreffen; dann zieht man die nächst kleineren der Tafel von den gegebenen ab und sieht in der Columne P. P. bei der gehörigen Differenz nach, welcher Ziffer der erhaltene Rest als Proportional-Theil zugehört; diese Ziffer fügt man als fünfte Ziffer der den nächst kleineren Decimalstellen entsprechenden Zahl zur Rechten bei. Wenn sich jener Rest nicht genau unter den Proportional-Theilen findet, so nimmt man statt seiner den nächst kleineren Proportional-Theil und die zugehörige Ziffer, verzehnfacht den Ueberschuß des Restes über diesen Proportional-Theil, und sucht für diese Zahl wiederum die zugehörige Ziffer, welches die sechste der gesuchten Zahl wird. Indessen ist schon diese sechste Ziffer fast immer um eine oder mehrere Einheiten ungewiß; für folgende Ziffern, wenn dergleichen durch die Kennziffer des gegebenen Logarithmen nöthig gemacht werden, muß man Nullen nehmen. Z. B.:

Um num. log 2,61735 zu finden, hat man

$$\begin{array}{rcl} \text{num. log } 2,61731 & = & 414,3 \text{ und Rest} = 4 \\ \text{Prop. Th. 4 bei der Diff. 11} & \text{gibt 5te Ziffer} = & 3 \text{ und Rest} = 0,7 \\ \text{Prop. Th. 7 bei der Diff. 11} & \text{gibt 6te Ziffer} = & 6 \\ \hline \text{also num. log } 2,61735 & = & 414,336 \end{array}$$

Ebenso für num. log 7,24073 ist zuerst

$$\begin{array}{rcl} \text{num. log } 7,24055 & = & 1740 \dots \text{ und Rest} = 18 \\ \text{Prop. Th. 18 bei der Diff. 25} & \text{gibt 5te Ziffer} = & 7 \dots \text{ und Rest} = 0,5 \\ \text{Prop. Th. 5 bei der Diff. 25} & \text{gibt 6te Ziffer} = & 2 \dots \\ \hline \text{also num. log } 7,24073 & = & 17407200 \end{array}$$

II. T a f e l.

4.

Die zweite Tafel enthält die Briggischen Logarithmen der Sinus und Tangenten, also auch der Cosinus und Cotangenten für alle Grade des Quadranten mit fünf Decimalstellen, und zwar stehen die Grade von 0° bis 45° oben, die Complementary von 90° bis 45° unten auf denselben Seiten. Zu den obern Graden werden die Minuten in der links liegenden mit einem Accent bezeichneten Columne abwärts, zu den untern Graden aber in der rechts liegenden, ebenso bezeichneten Columne aufwärts gezählt. Bei den ersten, also auch bei den letzten sechs Graden gehen die Winkel-Argumente von zehn zu zehn Secunden, vom siebenten und zugleich vom drei und achtzigsten Grade aber bis zum Ende der Tafel von Minute zu Minute. In der ganzen Ausdehnung der Tafel finden sich neben jeder Columne der

Sinus oder der Tangenten die zugehörigen Differenzen; bei den Cosinus sind dieselben für die ersten Grade, ihrer Kleinheit wegen, nicht angegeben, die Differenzen der Cotangenten aber sind immer denen der Tangenten gleich. Die Columnen P. P. geben die Proportional-Theile der einzelnen Secunden für jede Differenz.

5.

Um zu einem in Graden, Minuten und Secunden gegebenen Winkel den Logarithmen einer zugehörigen Kreisfunction zu finden, wird man zwei Fälle unterscheiden müssen, ob nämlich der Winkel in die ersten (oder letzten) sechs Grade des Quadranten fällt, oder nicht. Im ersten Falle erhält man den gesuchten Logarithmen für die Grade, Minuten und Zehner der Secunden des gegebenen Winkels unmittelbar aus der Tafel, und addirt hiezu den zehnten Theil des Products aus der nebenstehenden Differenz in die Einer der Secunden, um den vollständigen Logarithmen zu erhalten. Z. B. Wenn $\log \sin 0^\circ 52' 27''$ gesucht wird, so ist

$$\begin{array}{rcl} \log \sin 0^\circ 52' 20'' & = & 8,18249 \\ \frac{138 \times 7}{10} & = & 97 \\ \hline \text{also } \log \sin 0^\circ 52' 27'' & = & 8,18346 \end{array}$$

Ebenso ist $\log \tan 89^\circ 12' 48'' = 1,86230$

Im zweiten Falle, wo der gegebene Winkel zwischen 6° und 84° fällt, findet man den Logarithmen einer zugehörigen Kreisfunction unmittelbar nur für die Grade und Minuten des Winkels; man sucht alsdann für die nebenstehende Differenz den der gegebenen Anzahl von Secunden zugehörigen Proportional-Theil in der Columne P. P. und addirt oder subtrahirt ihn bei dem gefundenen Logarithmen, je nachdem dieser kleiner oder größer ist als der folgende Logarithme der Tafel. Z. B. Es werde $\log \tan 41^\circ 17' 35''$ gesucht; man hat

$$\begin{array}{rcl} \log \tan 41^\circ 17' & = & 9,94350 \\ \text{Prop. Th. bei der Differenz 25 für } 35'' & = & + 15 \\ \hline \text{also } \log \tan 41^\circ 17' 35'' & = & 9,94365 \end{array}$$

Ebenso ist $\log \cos 39^\circ 14' 35'' = 9,88900$.

6.

Um zu dem gegebenen Logarithmen einer Kreisfunction den zugehörigen Winkel zu finden, wird man den Logarithmen in der Columne der Kreisfunction aufsuchen, und wenn man ihn genau in derselben findet, zugleich auch den zugehörigen Winkel erhalten. Steht

aber derselbe nicht selbst in der Tafel, so fällt er zwischen zwei unmittelbar auf einander folgende; dann nimmt man für den gesuchten Winkel den kleineren der jenen beiden Logarithmen zugehörigen Winkel, und erhält denselben auf diese Weise, wenn er in die ersten oder letzten sechs Grade des Quadranten fällt, in Graden, Minuten und Zehnern von Secunden, sonst aber nur in Graden und Minuten. Um im ersten Falle die Einer der Secunden zu finden, wird man den Unterschied zwischen dem gefundenen und gegebenen Logarithmen verzehnfachen und durch die Differenz der beiden Tafel-Logarithmen dividiren; im zweiten Falle aber giebt jener Unterschied in der Columnne P. P. bei der gehörigen Differenz die Secunden. Z. B. Man findet unmittelbar

$$\text{ang. log Tang } 8,22469 = 0^{\circ}57'40''$$

$$\text{ang. log Cos } 9,47330 = 72^{\circ}42'0''$$

der zu log Tang 8,67769 gehörige Winkel aber findet sich durch

$$\text{ang. log Tang } 8,67757 = 2^{\circ}43'30''$$

$$\frac{12 \times 10}{44} = 3$$

$$\text{also ang. log Tang } 8,67769 = 2^{\circ}43'33''$$

Ebenso erhält man ang. log Cotg 8,20894 = $89^{\circ}4'23''$.

Für den zu log Sin 9,86598 gehörigen Winkel erhält man

$$\text{ang. log Sin } 9,86589 = 47^{\circ}15'$$

$$\text{Secunden bei der Diff. 11 für den Prop. Th. 9} = 49''$$

$$\text{also ang. log Sin } 9,86598 = 47^{\circ}15'49''$$

Auf gleiche Weise ist

$$\text{ang. log Sin } 9,83677 = 43^{\circ}22'13''$$

$$\text{ang. log Cos } 9,88645 = 39^{\circ}39'12''$$

$$\text{ang. log Tang } 0,03525 = 47^{\circ}19'21''$$

$$\text{ang. log Cotg } 9,93036 = 49^{\circ}34'27''$$

7.

Mit Hülfe der ersten Tafel findet man aus dem Logarithmen der Kreisfunction eines gegebenen Winkels diese Function selbst, und umgekehrt aus der Function den Logarithmen derselben und hieraus den zugehörigen Winkel. Z. B.:

$$\text{Tang } 41^{\circ}17'35'' = \text{num. log } 9,94365 = 0,87832$$

$$\text{ang. Cotg } 0,85184 = \text{ang. log Cotg } 9,93036 = 49^{\circ}34'27''$$

8.

Für Winkel, die nahe beim Anfange oder beim Ende des Quadranten liegen, ist die Interpolation, der großen Differenzen wegen, etwas unbe-

quem; hier kann man sich mit Vorthail der in der ersten Tafel gegebenen Zahlen S, T, V und der Columnne Corr. bedienen. Die Zahlen S und T geben nämlich, wenn sie zum Logarithmen der ersten Zahl jeder Seite addirt werden, den dieser Zahl, als einer Menge von Secunden zugehörigen Sinus oder die zugehörige Tangente; z. B.:

$$\log \sin 0^{\circ}27'0'' = \log \sin 1620'' = S + \log 1620 = 4,68557 + 3,20952 = 7,89509$$

$$\log \tan 0^{\circ}57'0'' = \log \tan 3420'' = T + \log 3420 = 4,68561 + 3,53403 = 8,21964$$

Um aber für jede einzelne auf einer Seite befindliche Zahl, als Secunden betrachtet, die zugehörigen S und T zu finden, dient die Columnne Corr. und die oberhalb derselben stehende Zahl V, indem nämlich hier für die einzelnen Minuten, die in den auf jeder Seite vorkommenden Secundenzahlen enthalten sind und also durch Interpolation auch für die einzelnen Secunden die Correction sich findet, die bei den Sinus von der Zahl V abgezogen, bei den Tangenten aber zu derselben addirt, die Werthe S und T giebt. Z. B. Für $\sin 1^{\circ}9'$ findet man die Correction 29, welche man von V abziehen muß, um $S = 4,685546$ zu erhalten; bei $\tan 2^{\circ}31'13''$ ist die Correction 280, welche zu V addirt, $T = 4,685855$ giebt. Leichter, wenn gleich etwas weniger genau (welches aber fast gar keinen Einfluß hat, da S und T auf sechs Decimalstellen gefunden werden) erhält man diese Zahlen, wenn man, statt die den Minuten und Secunden entsprechende Correction von V abzuziehen oder zu V zu addiren, den Unterschied der gefundenen und der ersten auf derselben Seite befindlichen Correction von dem obenstehenden S abzieht oder zu dem ebendasselbst befindlichen T addirt. Für die obigen Beispiele wäre beim Sinus von $1^{\circ}9'$, der Unterschied der Correctionen $29 - 28 = 1$, welcher von $S = 4,685547$ abgezogen den Werth $S = 4,685546$ giebt; bei der Tangente von $2^{\circ}31'13''$ aber ist der Unterschied $280 - 265 = 15$, welchen man zu $T = 4,685840$ addiren muß, um den neuen Werth von $T = 4,685855$ zu erhalten.

Sucht man nun den Logarithmen des Sinus oder der Tangente eines Winkels zwischen 0° und 3° , so addirt man zum zugehörigen S oder T den Logarithmen der Anzahl von Secunden, welche der Winkel enthält. Z. B. Für $\log \sin 1^{\circ}9'0'' = \log \sin 4140''$ ist

$$S = 4,68555$$

$$\log 4140 = 3,61700$$

$$\log \sin 1^{\circ}9'0'' = 8,30255$$

Bei $\log \tan 2^{\circ}31'13''3 = \log \tan 9073''3$ ist

$$T = 4,685855$$

$$\log 9073,3 = 3,957765$$

$$\log \tan 2^{\circ}31'13''3 = 8,64362$$

Wenn der Logarithme des Cosinus oder der Cotangente eines Winkels zwischen 87° und 90° gesucht wird, so nimmt man statt dessen den Logarithmen des Sinus oder der Tangente der Ergänzung des Winkels zu 90° auf die beschriebene Art; wenn aber der Logarithme der Tangente eines Winkels zwischen 87° und 90° gesucht wird, so ist derselbe die arithmetische Ergänzung zu 1 vom Logarithmen der Tangente, welche der Ergänzung des gegebenen Winkels zu 90° zugehört. Z. B.:

$$\log \cos 87^\circ 32' 31'' = \log \sin 2^\circ 27' 29'' = 8,63234$$

$$\log \cotg 88^\circ 14' 11'' = \log \tan 1^\circ 45' 49'' = 8,48842$$

$$\log \tan 88^\circ 19' 33'' = \text{C.} \log \tan 1^\circ 40' 27'' = 1,53420$$

Bei der umgekehrten Aufgabe: Zu dem gegebenen Logarithmen eines Sinus oder einer Tangente den zugehörigen (zwischen 0° und 3° oder zwischen 87° und 90° fallenden) Winkel zu finden, zieht man von dem Logarithmen die Zahl 4,685 ab und sucht in der Columnne 0 der ersten Tafel den nächst kleineren Logarithmen, dessen zugehörige Zahl, als Secunden betrachtet, näherungsweise den gesuchten Winkel giebt, für welchen man nun die Zahl S oder T sucht, diese vom gegebenen Logarithmen abzieht und für den Rest als Logarithmen die correspondirende Zahl sucht, die hinlänglich genau den gesuchten Winkel giebt. Z. B. Welchem Winkel gehört $\log \tan = 8,64362$ zu? Man hat $8,64362 - 4,685 = 3,95862$ und die zugehörige Zahl 9091'', für welche $T = 4,685855$ und $8,64362 - 4,685855 = 3,957765$, welchem Logarithmen die Zahl 9073,3 oder der Winkel $2^\circ 31' 13'' 3$ zugehört.

9.

Der Gebrauch der Zahlen S und T ist nicht besonders vortheilhaft, wenn die Winkel-Argumente, wie dies in der zweiten Tafel geschieht, von $10''$ zu $10''$ fortgehen; immer aber ist der Gebrauch der Columnne Corr. bei solchen trigonometrischen Rechnungen zu empfehlen, wo man aus einem gegebenen Winkel durch irgend eine Formel einen andern kleinen Winkel herleiten soll, wie dies z. B. in der Astronomie häufig vorkommt. Hier wird die Zahl V ganz vernachlässigt; man nimmt anstatt des Logarithmen des Sinus oder der Tangente eines Winkels oder Bogens, den Logarithmen der dem Winkel oder Bogen zugehörigen Anzahl von Secunden, und verbessert denselben durch Anwendung der Correction, die, wie vorhin, bei den Sinus abgezogen, bei den Tangenten addirt wird. Wenn man nachher zu der durch die Formel gefundenen Zahl als Logarithmen des Sinus oder der Tangente eines kleinen Winkels diesen selbst finden will, sucht man zuerst die dem Logarithmen entsprechende Zahl, betrachtet dieselbe als Secunden, und verwandelt sie in Grade, Minuten und

Secunden, nimmt die diesem Winkel zugehörige Correction, addirt dieselbe zum gegebenen Logarithmen, wenn ein Sinus, subtrahirt sie, wenn eine Tangente gesucht wird, und findet nun für den verbesserten Logarithmen die zugehörige Anzahl von Secunden, oder den gesuchten Winkel. Von den bei den Correctionen gegebenen doppelten Zeichen gilt das obere, wenn der Logarithme des Sinus oder der Tangente eines gegebenen Winkels gesucht wird, das untere im umgekehrten Falle. Z. B. Es werde aus der Formel $\text{Tang } p = N. \sin \pi$, wo $\pi = 54'41''75$ und $\log N = 9,87041$ bekannt wären, der Winkel p gesucht. Man hat $\log \pi = \log 54'41''75 = \log 3281''75 = 3,516107$; die Correction für $54'42''$ ist -19 Einheiten der sechsten Decimalstelle. Daher $\log \sin \pi = 3,516088$ und $\log \text{Tang } p = 3,516088 + 9,87041 = 3,38650$; hieraus $p = 40'35''$ und für diesen Winkel die Correction der Tangente $= -20$ Einheiten der sechsten Decimalstelle. Es ist also der verbesserte Logarithme $= 3,38648$ und für diesen der zugehörige Winkel $p = 40'34''89$.

III. T a f e l *).

IO.

Mittelst der dritten Tafel kann man den Logarithmen der Summe oder der Differenz zweier Zahlen finden, welche selbst nur durch ihre Logarithmen gegeben sind. Die erste mit A bezeichnete Columne der Tafel enthält alle Tausendtheile von 0 bis 2, alle Hunderttheile von 2 bis 3,4 und alle Zehnthteile von 3,4 bis 5,0; die Columnen B und C haben ungleiche, in den nebenstehenden Columnen bemerkte Differenzen. Die Columnen P. P. bei A, B und C enthalten Proportionaltheile.

II.

Wenn aus den Logarithmen zweier Gröfsen a und b der Logarithme der Summe $a + b$ gefunden werden soll, so sei $\log a$ der grössere Logarithme; alsdann gehe man mit $\log a - \log b$ in die Columne A ein und nehme daneben aus der Columne B die entsprechende Zahl, so ist

$$\log (a + b) = \log a + B.$$

Man findet aber $\log a - \log b$ in der Columne A nur mit Ausschluss der beiden letzten Ziffern; für diese Ziffern und für die bei B stattfindende

*) Diese Tafel ist vom Ritter Gauss berechnet und mit dessen gütiger Erlaubniss aus des Freiherrn von Zach Monatlicher Correspondenz hier abgedruckt.

Differenz suche man den Proportional-Theil in der neben A stehenden Columne P. P. und ziehe ihn von dem für die drei ersten Decimalziffern von A in der Columne B gefundenen Werthe ab. Z. B. Aus $\log a = 0,36173$ und $\log b = 0,23045$ den Logarithmen der Summe zu finden, suche man $\log a - \log b = 0,13128$ in A, wo man findet

$$\begin{array}{rcl} \text{für } A = 0,131 \dots\dots\dots & B = 0,24045 \\ \text{Prop. Th. für 28 bei der Diff. 42} \dots\dots & = & -12 \\ \hline \text{also für } A = 0,13128 \dots\dots\dots & B = 0,24033 \\ & \log a = 0,36173 \\ & \log (a + b) = 0,60206 \end{array}$$

12.

Soll aus den Logarithmen zweier Gröfsen a und b, der Logarithme der Differenz gefunden werden, so sei wieder $\log a$ der gröfsere, dann ist $\log a - \log b$ entweder kleiner oder gröfsere als 0,30103. Im ersten Falle geht man mit $\log a - \log b$ in die Columne B, im zweiten in die Columne C ein und nimmt das correspondirende C oder B, dann ist für den ersten Fall

$$\log (a - b) = \log a - C$$

für den zweiten

$$\log (a - b) = \log a - B.$$

Findet sich $\log a - \log b$ im ersten Falle nicht unmittelbar in B, so nimmt man in dieser Columne den nächst vorhergehenden Werth und zugleich sowohl das correspondirende C, als auch den Unterschied zwischen dem gefundenen und gegebenen B, sucht für diesen Unterschied und für die neben B stehende Differenz in der zu B gehörigen Columne P. P. den Proportional Theil und addirt denselben zu dem gefundenen C. Im zweiten Falle geht man von C auf B auf dieselbe Weise über, nur dafs der bei C gefundene Proportional-Theil vom correspondirenden B abgezogen wird. Z. B. Aus $\log a = 0,25042$ und $\log b = 0,19033$ den Logarithmen der Differenz zu finden, suche man $\log a - \log b = 0,06009$ in B, so findet man

$$\begin{array}{rcl} \text{für } B = 0,06017 \dots\dots\dots & C = 0,88817 \\ \text{Prop. Th. für 8 bei der Diff. 13} \dots\dots & = & +54 \\ \hline \text{also für } B = 0,06009 \dots\dots\dots & C = 0,88871 \\ & \log a = 0,25042 \\ & \log (a - b) = 9,36171 \end{array}$$

Ebenso findet man aus $\log a = 0,89042$ und $\log b = 0,24797$ den Logarithmen von $a - b$, wenn man mit $\log a - \log b = 0,64245$ in C eingeht, wo man erhält

$$\begin{array}{rcl}
 \text{für } C = 0,64231 \dots\dots\dots B = 0,11231 \\
 \text{Prop. Th. für 14 bei der Diff. 77} \dots\dots = & - & 4 \\
 \text{also für } C = 0,64245 \dots\dots\dots B = 0,11227 \\
 \log a = 0,89042 \\
 \log (a - b) = 0,77815
 \end{array}$$

Beim Gebrauche der Proportional-Theile ist noch zu bemerken, daß von der Differenz 20 bei A und B, und von der Differenz 80 bei C an, die Columne der Proportional-Theile von B alle möglichen Werthe des Arguments und die zugehörigen Proportional-Theile enthält, bei A und C aber jeder in der Columne P. P. vorkommende einem Argumente zugehörige Proportional-Theil für alle folgende Argumente so lange gilt, bis ein neues Argument in der Columne vorkommt. Es gehört z. B. bei A für die Differenz 20 den Argumenten 3, 4, 5, 6, 7 der Proportional-Theil 1, den Argumenten 8, 9, 10, 11, 12 der Proportional-Theil 2, u. s. w. zu; für die Argumente 1 und 2 aber ist derselbe = 0.

Z u s ä t z e.

13.

Der Gebrauch der am Ende der ersten Tafel vorkommenden Logarithmen ist für sich verständlich. Die ebendasselbst befindlichen Vielfache des Modulus der Briggischen Logarithmen und des reciproken Modulus dienen, erstere zur Verwandlung der natürlichen Logarithmen in Briggische, letztere zur Verwandlung der Briggischen in natürliche. Z. B. der Briggische Logarithme des Bogens $206265''$, der dem Halbmesser gleich ist, findet sich = 5,3144251; um hieraus den natürlichen Logarithmen zu finden, hat man

$$\begin{array}{rcl}
 \text{für } 5 \dots\dots\dots 11,512\ 925\ 464 \\
 - 0,3 \dots\dots\dots 0,690\ 775\ 528 \\
 - 0,01 \dots\dots\dots 0,023\ 025\ 851 \\
 - 0,004 \dots\dots\dots 0,009\ 210\ 340 \\
 - 0,0004 \dots\dots\dots 0,000\ 921\ 034 \\
 - 0,00002 \dots\dots\dots 0,000\ 046\ 052 \\
 - 0,000005 \dots\dots\dots 0,000\ 011\ 513 \\
 - 0,0000001 \dots\dots\dots 0,000\ 000\ 230 \\
 \hline
 \text{also für } 5,3144251 \dots\dots\dots 12,236\ 916\ 012 \\
 \text{daher } \log \text{ nat } 206265'' = 12,2369160.
 \end{array}$$

Am Ende der dritten Tafel findet sich eine Hülftafel zur Berechnung der Briggischen und natürlichen Logarithmen bis auf 16 Decimalstellen, von denen 14 verbürgt werden können. Der Gebrauch derselben ist folgender:

Wenn zu einer Zahl der zugehörige Briggische oder natürliche Logarithme gefunden werden soll, so dividire man dieselbe durch die nächstgrößere aus dem Producte eines Einers in eine positive oder negative Potenz von 10 bestehende Zahl, je nachdem die gegebene Zahl Ganze enthält, oder ein ächter Decimalbruch ist. Z. B. für 3172 ist der Divisor $4 \cdot 10^3 = 4000$; für 0,00247 ist derselbe $3 \cdot 10^{-3} = 3 \cdot \frac{1}{1000} = 0,003$; für 4,23 aber $5 \cdot 10^0 = 5$. Den erhaltenen Decimalbruch multiplicire man mit einem Factor von der Form $1 + \frac{x}{10}$ oder $1, x$, wo die Ziffer x die erste Decimalstelle des Bruchs zu 9 ergänzt. Giebt die Multiplication ein Product, dessen erste Decimalziffer nicht 9 ist, so muß man mit $1 + \frac{x'}{10}$ oder $1, x'$, wo x' die erste Ziffer des Products zu 9 ergänzt, multipliciren. Gewiß wird nun die erste Decimalziffer eine 9 sein, und man multiplicirt das erhaltene Product mit $1 + \frac{y}{100}$ oder $1,0y$, wo y die zweite Decimalziffer zu 9 ergänzt und also 0 ist, wenn diese eine 9 war. Durch wiederholte Multiplicationen mit Factoren der angegebenen Form wird man es dahin bringen, daß zuletzt die sämtlichen Ziffern des Products aus Neunen bestehen. Diese Multiplicationen brauchen nur bis auf soviel Decimalstellen ausgeführt zu werden, als man im Logarithmen haben will, auch finden sonst mancherlei Abkürzungen der Rechnung statt. Aus der Hülftafel nimmt man hierauf die Logarithmen der sämtlichen nach und nach erhaltenen Factoren, addirt dieselben und zieht die Summe von dem ebenfalls in der Tafel entweder unmittelbar befindlichen, oder durch die Addition des Logarithmen eines Einers zu dem einer Potenz von 10 zu erhaltenden Logarithmen des anfänglichen Divisors ab, um den gesuchten Logarithmen zu finden. Z. B. Es soll der Briggische und auch der natürliche Logarithme der Zahl $\pi = 3,1415926535897932$ auf 14 Decimalstellen gefunden werden. Man dividire die Zahl π durch 4 als den nächst höheren Einer, so ist

$$\frac{\pi}{4} = 0,7853981633974483$$

und hieraus findet man folgende Factoren:

$$\begin{aligned}
 &0,7853981633974483 \times 1,2 \\
 &0,94247779607693796 \times 1,05 \\
 &0,98960168588078486 \times 1,01 \\
 &0,99949770273959271 \times 1,0005 \\
 &0,99999745159096251 \times 1,000002 \\
 &0,99999945158586569 \times 1,0000005 \\
 &0,99999995158559148 \times 1,00000004 \\
 &0,99999999158558954 \times 1,000000008 \\
 &0,99999999958558947
 \end{aligned}$$

Die übrigen Factoren ergeben sich ohne weitere Multiplication. Nun erhält man

Factoren	Brigg. Log.	Natürl. Log.
1,2	0,07918 12460 47624 8	0,18232 15567 93954 6
1,05	0,02118 92990 69938 1	0,04879 01641 69432 0
1,01	0,00432 13737 82642 6	0,00995 03308 53168 1
1,0005	0,00021 70929 72230 2	0,00049 98750 41651 0
1,00000 2	0,00000 08685 88095 2	0,00000 19999 98000 0
1,00000 05	0,00000 02171 47186 7	0,00000 04999 99875 0
1,00000 004	0,00000 00173 71778 9	0,00000 00399 99999 2
1,00000 0008	0,00000 00034 74355 8	0,00000 00080 00000 0
1,00000 00004	0,00000 00001 73717 8	0,00000 00004 00000 0
1,00000 00000 1	0,00000 00000 04342 9	0,00000 00000 10000 0
1,00000 00000 04	0,00000 00000 01737 2	0,00000 00000 04000 0
1,00000 00000 004	0,00000 00000 00173 7	0,00000 00000 00400 0
1,00000 00000 0001	0,00000 00000 00004 3	0,00000 00000 00010 0
1,00000 00000 00000 5	0,00000 00000 00000 2	0,00000 00000 00000 5
1,00000 00000 00000 02	0,00000 00000 00000 0	0,00000 00000 00000 0
Summe	0,10491 01186 33828 4	0,24156 44752 70490 4
log 4	0,60205 99913 27962 4	1,38629 43611 19890 6
log π	0,49714 98726 94134 0	1,14472 98858 49400 2

Es ist also

$$\log \text{Brigg. } \pi = 0,49714987269413$$

$$\log \text{ nat. } \pi = 1,14472988584940$$

Bei der umgekehrten Aufgabe: Zu einem gegebenen Logarithmen die zugehörige Zahl zu finden, zieht man von demselben den nächstkleineren Logarithmen der Tafel ab, von dem Reste wiederum den nächstkleineren, so lange dies möglich ist; nimmt hierauf die den abgezogenen Logarithmen in der Tafel entsprechenden Zahlen und erhält durch Multiplication

derselben die gesuchte Zahl. Z. B. Wenn aus $\log \text{ nat. } h = 1$ der Werth von h gefunden werden soll, so erhält man durch folgende Rechnung die einzelnen Factoren

Logarithmen	Factoren
1,00000 00000 00000 0	
0,69314 71805 59945 3	2
0,30685 28194 40054 7	
0,26236 42644 67491 1	1,3
0,04448 85549 72563 6	
0,03922 07131 53281 3	1,04
0,00526 78418 19282 3	
0,00498 75415 11039 1	1,005
0,00028 03003 08243 2	
0,00019 99800 02666 3	1,0002
0,00008 03203 05576 9	
0,00007 99968 00170 7	1,00008
0,00000 03235 05406 2	
0,00000 02999 99955 0	1,0000003
0,00000 00235 05451 2	
0,00000 00199 99999 8	1,00000002
0,00000 00035 05451 4	

Die übrigen Factoren

1,00000 0003
 1,00000 00005
 1,00000 00000 05
 1,00000 00000 004
 1,00000 00000 0005
 1,00000 00000 00001
 1,00000 00000 000004

ergeben sich, wie man leicht sieht, ohne weitere Subtraction. Die Multiplication der Factoren, die nur bis zur sechszehnten Decimalstelle ausgeführt zu werden braucht, giebt das Product 2,7182818284590447, so daß also die Grundzahl der natürlichen Logarithmen

$$h = 2,718281828459045$$

Die Hülftafel kann übrigens auch auf eine bequeme Weise zur Interpolation bei Logarithmentafeln von 10 und mehr Decimalstellen dienen.

15.

Formeln für die Kreisfunctionen.

1. $\sin a^2 + \cos a^2 = 1$; $\sin a = \sqrt{1 - \cos a^2}$; $\cos a = \sqrt{1 - \sin a^2}$.
2. $\text{Tang } a = \frac{\sin a}{\cos a}$; $\text{Cotg } a = \frac{\cos a}{\sin a}$; $\text{Tang } a \cdot \text{Cotg } a = 1$.
3. $\sin a = \sqrt{\frac{1 - \cos 2a}{2}} = \frac{\text{Tang } a}{\sqrt{1 + \text{Tang } a^2}} = \frac{1}{\sqrt{1 + \text{Cotg } a^2}}$
 $= 2 \sin \frac{1}{2} a \cdot \cos \frac{1}{2} a = \frac{2 \text{Tang } \frac{1}{2} a}{1 + \text{Tang } \frac{1}{2} a^2} = \frac{2 \text{Cotg } \frac{1}{2} a}{1 + \text{Cotg } \frac{1}{2} a^2}$
4. $\cos a = \frac{\sin 2a}{2 \sin a} = \frac{1}{\sqrt{1 + \text{Tang } a^2}} = \frac{\text{Cotg } a}{\sqrt{1 + \text{Cotg } a^2}} = \cos \frac{1}{2} a^2 - \sin \frac{1}{2} a^2$
 $= \frac{1 - \text{Tang } \frac{1}{2} a^2}{1 + \text{Tang } \frac{1}{2} a^2} = \frac{\text{Cotg } \frac{1}{2} a^2 - 1}{\text{Cotg } \frac{1}{2} a^2 + 1} = 1 - 2 \sin \frac{1}{2} a^2 = 2 \cos \frac{1}{2} a^2 - 1$
 $= \frac{1}{2} \sqrt{1 + \sin 2a} + \frac{1}{2} \sqrt{1 - \sin 2a}$.
5. $\text{Tang } a = \sqrt{\frac{1 - \cos 2a}{1 + \cos 2a}} = \frac{\sin 2a}{1 + \cos 2a} = \frac{1 - \cos 2a}{\sin 2a} = \frac{2 \text{Tang } \frac{1}{2} a}{1 - \text{Tang } \frac{1}{2} a^2}$
 $= \frac{2 \text{Cotg } \frac{1}{2} a}{\text{Cotg } \frac{1}{2} a^2 - 1}$.
6. $\text{Cotg } a = \sqrt{\frac{1 + \cos 2a}{1 - \cos 2a}} = \frac{1 + \cos 2a}{\sin 2a} = \frac{\sin 2a}{1 - \cos 2a} = \frac{1 - \text{Tang } \frac{1}{2} a^2}{2 \text{Tang } \frac{1}{2} a}$
 $= \frac{\text{Cotg } \frac{1}{2} a^2 - 1}{2 \text{Cotg } \frac{1}{2} a}$.
7. $1 \pm \sin a = 2 \sin (45^\circ \pm \frac{1}{2} a)^2$.
8. $\frac{1 \pm \sin a}{1 - \sin a} = \frac{\text{Tang } (45^\circ + \frac{1}{2} a)}{\text{Tang } (45^\circ - \frac{1}{2} a)} = \text{Tang } (45^\circ + \frac{1}{2} a)^2 = \text{Cotg } (45^\circ - \frac{1}{2} a)^2$.
9. $\frac{1 + \sin a}{\cos a} = \frac{\cos a}{1 - \sin a} = \text{Tang } (45^\circ + \frac{1}{2} a) = \text{Cotg } (45^\circ - \frac{1}{2} a)$.
10. $\frac{1 + \text{Tang } a}{1 - \text{Tang } a} = \frac{\text{Cotg } a + 1}{\text{Cotg } a - 1} = \sqrt{\frac{1 + \sin 2a}{1 - \sin 2a}} = \frac{\sin (45^\circ + a)}{\sin (45^\circ - a)}$
 $= \text{Tang } (45^\circ + a) = \text{Cotg } (45^\circ - a)$.
11. $\sin (a \pm b) = \sin a \cdot \cos b \pm \cos a \cdot \sin b$.
12. $\cos (a \pm b) = \cos a \cdot \cos b \mp \sin a \cdot \sin b$.
13. $\text{Tang } (a \pm b) = \frac{\text{Tang } a \pm \text{Tang } b}{1 \mp \text{Tang } a \cdot \text{Tang } b} = \frac{\text{Cotg } b \pm \text{Cotg } a}{\text{Cotg } a \cdot \text{Cotg } b \mp 1}$.
14. $\text{Cotg } (a \pm b) = \frac{\text{Cotg } a \cdot \text{Cotg } b \mp 1}{\text{Cotg } b \pm \text{Cotg } a} = \frac{1 \mp \text{Tang } a \cdot \text{Tang } b}{\text{Tang } a \pm \text{Tang } b}$.
15. $\sin a \cdot \sin b = \frac{1}{2} \cos (a - b) - \frac{1}{2} \cos (a + b)$.
16. $\cos a \cdot \cos b = \frac{1}{2} \cos (a - b) + \frac{1}{2} \cos (a + b)$.
17. $\sin a \cdot \cos b = \frac{1}{2} \sin (a + b) + \frac{1}{2} \sin (a - b)$.
18. $\cos a \cdot \sin b = \frac{1}{2} \sin (a + b) - \frac{1}{2} \sin (a - b)$.

19. $\sin a + \sin b = 2 \sin \frac{1}{2}(a+b) \cdot \cos \frac{1}{2}(a-b).$
20. $\sin a - \sin b = 2 \cos \frac{1}{2}(a+b) \cdot \sin \frac{1}{2}(a-b).$
21. $\cos a + \cos b = 2 \cos \frac{1}{2}(a+b) \cdot \cos \frac{1}{2}(a-b).$
22. $\cos b - \cos a = 2 \sin \frac{1}{2}(a+b) \cdot \sin \frac{1}{2}(a-b).$
23. $\operatorname{Tang} a \pm \operatorname{Tang} b = \frac{\sin(a \pm b)}{\cos a \cdot \cos b}.$
24. $\operatorname{Cotg} a \pm \operatorname{Cotg} b = \frac{\sin(b \pm a)}{\sin a \cdot \sin b}.$
25. $\operatorname{Cotg} a \pm \operatorname{Tang} b = \frac{\cos(a \mp b)}{\sin a \cdot \cos b}.$
26. $1 \pm \operatorname{Tang} a \cdot \operatorname{Tang} b = \frac{\cos(a \mp b)}{\cos a \cdot \cos b}.$
27. $\operatorname{Cotg} a \cdot \operatorname{Cotg} b \pm 1 = \frac{\cos(a \mp b)}{\sin a \cdot \sin b}.$
28. $\sin(a+b) \cdot \sin(a-b) = \sin a^2 - \sin b^2 = \frac{1}{2} \cos 2b - \frac{1}{2} \cos 2a.$
29. $\cos(a+b) \cdot \cos(a-b) = \cos a^2 - \sin b^2 = \frac{1}{2} \cos 2b + \frac{1}{2} \cos 2a.$
30. $\sin(a \pm b) \cdot \cos(a \mp b) = \frac{1}{2} \sin 2a \pm \frac{1}{2} \sin 2b.$

16.

Formeln der Trigonometrie.

Die Winkel des Dreiecks werden mit A, B, C , die denselben gegenüberstehenden Seiten mit a, b, c bezeichnet; F ist die Fläche des Dreiecks.

1. Das rechtwinklige ebene Dreieck ($C=90^\circ$).

Gegeben	Gesucht	Formel.
a, b	A, B, c, F	$\operatorname{Tang} A = \frac{a}{b} = \operatorname{Cotg} B; c = \frac{a}{\sin A} = \frac{b}{\cos A} = \sqrt{a^2 + b^2}; F = \frac{1}{2} ab.$
a, c	A, B, b, F	$\sin A = \frac{a}{c} = \cos B; b = a \operatorname{Cotg} A = c \cos A = \sqrt{c^2 - a^2}; F = \frac{1}{2} ab.$
c, A	a, b, F	$a = c \sin A; b = c \cos A; F = \frac{1}{4} c^2 \sin 2A.$
a, A	b, c, F	$b = a \operatorname{Cotg} A; c = \frac{a}{\sin A}; F = \frac{1}{2} a^2 \operatorname{Cotg} A.$

2. Das ebene Dreieck im Allgemeinen.

a, b, c	$A, F,$	$\sin \frac{1}{2} A = \frac{1}{2} \sqrt{\frac{(a+b-c)(a-b+c)}{bc}}; \cos \frac{1}{2} A = \frac{1}{2} \sqrt{\frac{(a+b+c)(-a+b+c)}{bc}};$ $F = \frac{1}{4} \sqrt{(a+b+c)(a+b-c)(a-b+c)(-a+b+c)}.$
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Gegeben	Gesucht	Formel
a, b, C	A, B, c, F	$\text{Tang } N = \frac{a-b}{a+b} \text{ Cotg } \frac{1}{2} C \text{ und } A = 90^\circ - \frac{1}{2} C + N, B = 90^\circ - \frac{1}{2} C - N;$ $c = \frac{a \sin C}{\sin A} = \frac{b \sin C}{\sin B}; F = \frac{1}{2} a b \sin C.$
a, b, A	B, c, C, F	$\sin B = \frac{b \sin A}{a}; c = \frac{a \sin(A+B)}{\sin A}; C = 180^\circ - (A+B); F = \frac{1}{2} a b \sin(A+B).$
a, A, B	b, c, C, F	$b = \frac{a \sin B}{\sin A}; c = \frac{a \sin(A+B)}{\sin A}; C = 180^\circ - (A+B); F = \frac{a^2 \sin B \sin(A+B)}{2 \sin A}.$

3. Das rechtwinklige sphärische Dreieck ($C=90^\circ$).

a, b	A, B, c	$\text{Cotg } A = \text{Cotg } a \cdot \sin b; \text{ Cotg } B = \text{Cotg } b \cdot \sin a; \cos c = \cos a \cdot \cos b.$
a, c	A, B, b	$\sin A = \sin a : \sin c; \cos B = \text{Tang } a \cdot \text{Cotg } c; \cos b = \cos c : \cos a.$
a, A	B, b, c	$\sin B = \cos A : \cos a; \sin b = \text{Tang } a \cdot \text{Cotg } A; \sin c = \sin a : \sin A.$
a, B	A, b, c	$\cos A = \cos a \cdot \sin B; \text{Tang } b = \text{Tang } B \cdot \sin a; \text{Cotg } c = \text{Cotg } a \cdot \cos B.$
c, A	a, b, B	$\sin a = \sin c \cdot \sin A; \text{Tang } b = \text{Tang } c \cdot \cos A; \text{Cotg } B = \cos c \cdot \text{Tang } A.$
A, B	a, b, c	$\cos a = \cos A : \sin B; \cos b = \cos B : \sin A; \cos c = \text{Cotg } A \cdot \text{Cotg } B.$

Wenn S die ganze Kugeloberfläche ist, so ist

$$F = \frac{A + B - 90^\circ}{720^\circ} S.$$

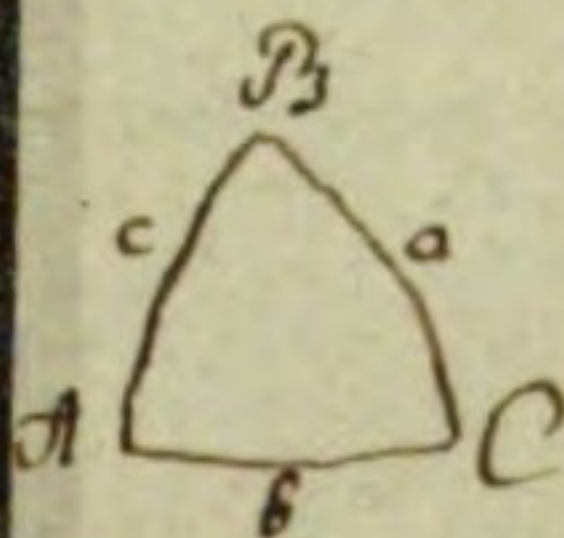
4. Das rechtseitige sphärische Dreieck ($c=90^\circ$).

A, B	a, b, C	$\text{Cotg } a = \text{Cotg } A \cdot \sin B; \text{ Cotg } b = \text{Cotg } B \cdot \sin A; \cos C = \cos A \cdot \cos B.$
A, C	a, b, B	$\sin a = \sin A : \sin C; \cos b = -\text{Tang } A \cdot \text{Cotg } C; \cos B = -\cos C : \cos A.$
A, a	b, B, C	$\sin b = \cos a : \cos A; \sin B = \text{Tang } A \cdot \text{Cotg } a; \sin C = \sin A : \sin a.$
A, b	a, B, C	$\cos a = \cos A \cdot \sin b; \text{Tang } B = \text{Tang } b \cdot \sin A; \text{Cotg } C = -\text{Cotg } A \cdot \cos b.$
C, a	A, B, b	$\sin A = \sin C \cdot \sin a; \text{Tang } B = -\text{Tang } C \cdot \cos a; \text{Cotg } b = -\cos C \cdot \text{Tang } a.$
a, b	A, B, C	$\cos A = \cos a : \sin b; \cos B = \cos b : \sin a; \cos C = -\text{Cotg } a \cdot \text{Cotg } b.$

$$F = \frac{A + B + C - 180^\circ}{720^\circ} S.$$

5. Das sphärische Dreieck im Allgemeinen.

a, b, c	A	$\cos A = \frac{\cos a - \cos b \cdot \cos c}{\sin b \cdot \sin c};$ $\sin \frac{1}{2} A = \sqrt{\frac{\sin \frac{1}{2} (a+b+c) \cdot \sin \frac{1}{2} (a-b+c)}{\sin b \cdot \sin c}};$ $\cos \frac{1}{2} A = \sqrt{\frac{\sin \frac{1}{2} (a+b+c) \cdot \sin \frac{1}{2} (-a+b+c)}{\sin b \cdot \sin c}}.$
a, b, C	A, B, c	I $\sin c \cdot \sin A = \sin a \cdot \sin C;$ II $\sin c \cdot \cos A = \cos a \cdot \sin b - \sin a \cdot \cos b \cdot \cos C;$ I* $\sin c \cdot \sin B = \sin b \cdot \sin C;$ II* $\sin c \cdot \cos B = \cos b \cdot \sin a - \sin b \cdot \cos a \cdot \cos C;$ III $\cos c = \cos a \cdot \cos b + \sin a \cdot \sin b \cdot \cos C;$ Die Division von II durch I gibt $\text{Cotg } A$ und $\sin c$, die von II* durch I* ebenso $\text{Cotg } B$ und $\sin c$; aus III erhält man unmittelbar $\cos c$.



Gegeben	Gesucht	Formel.
		I Sin $\frac{1}{2} c$. Sin $\frac{1}{2} (A - B) = \text{Cos } \frac{1}{2} C$. Sin $\frac{1}{2} (a - b)$; II Sin $\frac{1}{2} c$. Cos $\frac{1}{2} (A - B) = \text{Sin } \frac{1}{2} C$. Sin $\frac{1}{2} (a + b)$; III Cos $\frac{1}{2} c$. Sin $\frac{1}{2} (A + B) = \text{Cos } \frac{1}{2} C$. Cos $\frac{1}{2} (a - b)$; IV Cos $\frac{1}{2} c$. Cos $\frac{1}{2} (A + B) = \text{Sin } \frac{1}{2} C$. Cos $\frac{1}{2} (a + b)$; Aus I und II erhält man Tang $\frac{1}{2} (A - B)$ und Sin $\frac{1}{2} c$, aus III und IV Tang $\frac{1}{2} (A + B)$ und Cos $\frac{1}{2} c$, also $\frac{1}{2} (A - B)$ und $\frac{1}{2} (A + B)$ und hieraus A und B; außerdem aber zwei Werthe für $\frac{1}{2} c$, deren Uebereinstimmung eine Controlle der Rechnung ist.
A, B, c	a, b, C	I Sin C . Sin $a = \text{Sin } A$. Sin c; II Sin C . Cos $a = \text{Cos } A$. Sin $B + \text{Sin } A$. Cos B . Cos c; I* Sin C . Sin $b = \text{Sin } B$. Sin c; II* Sin C . Cos $b = \text{Cos } B$. Sin $A + \text{Sin } B$. Cos A . Cos c; III Cos $C = -\text{Cos } A$. Cos $B + \text{Sin } A$. Sin B . Cos c; Die Division von II durch I giebt Cotg a und Sin C, die von II* durch I* ebenso Cotg b und Sin C; aus III erhält man unmittelbar Cos C. I Sin $\frac{1}{2} C$. Sin $\frac{1}{2} (a + b) = \text{Sin } \frac{1}{2} c$. Cos $\frac{1}{2} (A - B)$; II Sin $\frac{1}{2} C$. Cos $\frac{1}{2} (a + b) = \text{Cos } \frac{1}{2} c$. Cos $\frac{1}{2} (A + B)$; III Cos $\frac{1}{2} C$. Sin $\frac{1}{2} (a - b) = \text{Sin } \frac{1}{2} c$. Sin $\frac{1}{2} (A - B)$; IV Cos $\frac{1}{2} C$. Cos $\frac{1}{2} (a - b) = \text{Cos } \frac{1}{2} c$. Sin $\frac{1}{2} (A + B)$; Aus I und II erhält man Tang $\frac{1}{2} (a + b)$ und Sin $\frac{1}{2} C$, aus III und IV Tang $\frac{1}{2} (a - b)$ und Cos $\frac{1}{2} C$, also $\frac{1}{2} (a + b)$ und $\frac{1}{2} (a - b)$ und hieraus a und b; außerdem aber zwei Werthe für $\frac{1}{2} C$, deren Uebereinstimmung eine Controlle der Rechnung ist.
a, b, A	B, C, c	Sin $B = \frac{\text{Sin } b \cdot \text{Sin } A}{\text{Sin } a}$ Tang $\frac{1}{2} C = \frac{\text{Cos } \frac{1}{2} (a - b)}{\text{Cos } \frac{1}{2} (a + b)} \text{Cotg } \frac{1}{2} (A + B) = \frac{\text{Sin } \frac{1}{2} (a - b)}{\text{Sin } \frac{1}{2} (a + b)} \text{Cotg } \frac{1}{2} (A - B).$ Tang $\frac{1}{2} c = \frac{\text{Cos } \frac{1}{2} (A + B)}{\text{Cos } \frac{1}{2} (A - B)} \text{Tang } \frac{1}{2} (a + b) = \frac{\text{Sin } \frac{1}{2} (A + B)}{\text{Sin } \frac{1}{2} (A - B)} \text{Tang } \frac{1}{2} (a - b);$
A, B, a	b, c, C	Sin $b = \frac{\text{Sin } B \cdot \text{Sin } a}{\text{Sin } A};$ Tang $\frac{1}{2} C$ und Tang $\frac{1}{2} c$ wie vorher.
A, B, C	a	Cos $a = \frac{\text{Cos } A + \text{Cos } B \cdot \text{Cos } C}{\text{Sin } A \cdot \text{Sin } B};$ Sin $\frac{1}{2} a = \sqrt{\frac{\text{Cos } \frac{1}{2} (A + B + C) \cdot \text{Cos } \frac{1}{2} (-A + B + C)}{\text{Sin } B \cdot \text{Sin } C}};$ Cos $\frac{1}{2} a = \sqrt{\frac{\text{Cos } \frac{1}{2} (A - B + C) \cdot \text{Cos } \frac{1}{2} (A + B - C)}{\text{Sin } B \cdot \text{Sin } C}};$ $F = \frac{A + B + C - 180^\circ}{720^\circ} S.$

Briggische Logarithmen der Zahlen von I bis 10800.									
1	0.0000000	10	0.0434254	19	0.0868508	28	0.1302762	37	0.1737016
2	0.3010299	11	0.0453234	20	0.0903085	29	0.1349385	38	0.1774548
3	0.4771212	12	0.0475484	21	0.0934254	30	0.1384829	39	0.1812181
4	0.6020599	13	0.0501059	22	0.0967133	31	0.1423491	40	0.1850814
5	0.6989700	14	0.0529823	23	0.1002742	32	0.1464292	41	0.1890447
6	0.7781512	15	0.0561805	24	0.1041291	33	0.1507343	42	0.1931080
7	0.8450980	16	0.0597143	25	0.1082890	34	0.1552994	43	0.1972713
8	0.9030899	17	0.0635987	26	0.1127639	35	0.1601385	44	0.2015346
9	0.9542425	18	0.0677500	27	0.1175598	36	0.1652556	45	0.2058979
10	1.0000000	19	0.0721853	28	0.1226007	37	0.1706537	46	0.2103612
11	1.0413926	20	0.0769021	29	0.1279766	38	0.1763268	47	0.2149245
12	1.0791812	21	0.0818189	30	0.1336975	39	0.1822789	48	0.2195878
13	1.1149417	22	0.0869467	31	0.1398724	40	0.1885150	49	0.2243511
14	1.1491853	23	0.0923055	32	0.1464113	41	0.1949301	50	0.2292144
15	1.1818426	24	0.0979063	33	0.1532242	42	0.2015282	51	0.2341777
16	1.2129885	25	0.1037601	34	0.1603211	43	0.2083143	52	0.2392410
17	1.2426680	26	0.1099769	35	0.1677130	44	0.2152924	53	0.2444043
18	1.2709156	27	0.1165677	36	0.1754009	45	0.2224665	54	0.2496676
19	1.2977661	28	0.1235436	37	0.1833958	46	0.2298406	55	0.2550309
20	1.3232435	29	0.1309155	38	0.1917087	47	0.2374187	56	0.2604942
21	1.3473803	30	0.1386834	39	0.1993516	48	0.2452048	57	0.2660575
22	1.3702087	31	0.1468573	40	0.2073345	49	0.2531029	58	0.2717208
23	1.3917602	32	0.1554392	41	0.2156674	50	0.2611170	59	0.2774841
24	1.4120657	33	0.1644311	42	0.2243603	51	0.2692511	60	0.2833474
25	1.4311562	34	0.1738430	43	0.2334332	52	0.2775092	61	0.2893107
26	1.4490627	35	0.1836849	44	0.2428961	53	0.2858853	62	0.2953740
27	1.4658152	36	0.1939668	45	0.2527690	54	0.2946634	63	0.3015373
28	1.4814437	37	0.2046987	46	0.2630519	55	0.3036515	64	0.3077906
29	1.4959722	38	0.2158806	47	0.2737448	56	0.3129496	65	0.3141339
30	1.5094307	39	0.2275225	48	0.2848577	57	0.3224677	66	0.3205672
31	1.5218492	40	0.2396344	49	0.2963906	58	0.3312058	67	0.3270905
32	1.5332577	41	0.2521263	50	0.3083435	59	0.3401639	68	0.3337038
33	1.5436862	42	0.2650082	51	0.3207164	60	0.3493420	69	0.3404071
34	1.5531547	43	0.2782901	52	0.3335893	61	0.3587401	70	0.3472004
35	1.5616832	44	0.2919820	53	0.3469622	62	0.3683582	71	0.3540837
36	1.5692917	45	0.3060939	54	0.3608351	63	0.3781963	72	0.3610470
37	1.5759902	46	0.3206258	55	0.3752080	64	0.3882544	73	0.3680903
38	1.5817987	47	0.3355877	56	0.3901709	65	0.3986325	74	0.3752136
39	1.5867272	48	0.3509896	57	0.4057238	66	0.4093306	75	0.3824169
40	1.5907857	49	0.3668315	58	0.4218667	67	0.4203487	76	0.3896902
41	1.5939842	50	0.3831234	59	0.4386096	68	0.4316868	77	0.3970335
42	1.5963227	51	0.4000053	60	0.4559525	69	0.4433449	78	0.4044468
43	1.5978112	52	0.4174872	61	0.4737954	70	0.4553230	79	0.4119301
44	1.5984597	53	0.4355691	62	0.4921383	71	0.4676211	80	0.4194834
45	1.5982782	54	0.4542510	63	0.5109812	72	0.4802392	81	0.4271067
46	1.5972767	55	0.4735329	64	0.5303241	73	0.4931773	82	0.4347900
47	1.5954652	56	0.4934148	65	0.5501670	74	0.5064354	83	0.4425333
48	1.5927537	57	0.5138967	66	0.5705100	75	0.5200135	84	0.4503366
49	1.5891522	58	0.5349786	67	0.5913529	76	0.5339116	85	0.4581999
50	1.5846707	59	0.5566605	68	0.6126458	77	0.5481297	86	0.4661232
51	1.5793192	60	0.5789424	69	0.6343887	78	0.5626678	87	0.4741065
52	1.5730977	61	0.6018243	70	0.6565816	79	0.5775259	88	0.4821498
53	1.5660162	62	0.6253062	71	0.6792245	80	0.5927040	89	0.4902531
54	1.5580847	63	0.6493881	72	0.7023174	81	0.6082021	90	0.4984164
55	1.5493132	64	0.6740700	73	0.7258203	82	0.6240202	91	0.5066397
56	1.5397017	65	0.6993519	74	0.7497332	83	0.6401583	92	0.5149230
57	1.5292502	66	0.7252338	75	0.7740561	84	0.6566164	93	0.5232663
58	1.5179687	67	0.7517157	76	0.7987890	85	0.6733945	94	0.5316696
59	1.5058472	68	0.7788076	77	0.8239319	86	0.6904926	95	0.5401329
60	1.4928857	69	0.8064195	78	0.8495348	87	0.7079107	96	0.5486562
61	1.4790842	70	0.8345614	79	0.8756077	88	0.7256488	97	0.5572395
62	1.4644427	71	0.8632433	80	0.9021106	89	0.7437069	98	0.5658828
63	1.4489612	72	0.8924852	81	0.9290435	90	0.7620850	99	0.5745861
64	1.4326397	73	0.9222971	82	0.9564064	91	0.7807831	100	0.5833494
65	1.4154782	74	0.9526890	83	0.9842093	92	0.7998012		
66	1.3974767	75	0.9836709	84	1.0124622	93	0.8191393		
67	1.3786352	76	1.0152528	85	1.0411751	94	0.8387974		
68	1.3589537	77	1.0474447	86	1.0703380	95	0.8587755		
69	1.3384322	78	1.0801566	87	1.1000609	96	0.8790736		
70	1.3170707	79	1.1133985	88	1.1303538	97	0.8996917		
71	1.2948692	80	1.1471804	89	1.1612167	98	0.9206298		
72	1.2718277	81	1.1815023	90	1.1926596	99	0.9418879		
73	1.2479462	82	1.2163742	91	1.2247025				
74	1.2232247	83	1.2517961	92	1.2573454				
75	1.1976632	84	1.2877680	93	1.2905883				
76	1.1712617	85	1.3242899	94	1.3244312				
77	1.1440202	86	1.3613618	95	1.3588141				
78	1.1159387	87	1.3989837	96	1.3937370				
79	1.0870172	88	1.4371556	97	1.4292099				
80	1.0572557	89	1.4758775	98	1.4652328				
81	1.0266542	90	1.5151494	99	1.5018057				
82	0.9952127	91	1.5549713						
83	0.9629312	92	1.5953432						
84	0.9298097	93	1.6362651						
85	0.8958482	94	1.6777370						
86	0.8610467	95	1.7197589						
87	0.8254052	96	1.7623308						
88	0.7889237	97	1.8054527						
89	0.7516022	98	1.8491246						
90	0.7134407	99	1.8933465						

"	N. Log. 0'	N. Log. 1'	N. Log. 2'	N. Log. 3'	N. Log. 4'	N. Log. 5'	N. Log. 6'
0		60 1.77 815	120 2.07 918	180 2.25 527	240 2.38 021	300 2.47 712	360 2.55 630
	1 0.00 000	61 1.78 533	121 2.08 279	181 2.25 768	241 2.38 202	301 2.47 857	361 2.55 751
	2 0.30 103	62 1.79 239	122 2.08 636	182 2.26 007	242 2.38 382	302 2.48 001	362 2.55 871
	3 0.47 712	63 1.79 934	123 2.08 991	183 2.26 245	243 2.38 561	303 2.48 144	363 2.55 991
	4 0.60 206	64 1.80 618	124 2.09 342	184 2.26 482	244 2.38 739	304 2.48 287	364 2.56 110
	5 0.69 897	65 1.81 291	125 2.09 691	185 2.26 717	245 2.38 917	305 2.48 430	365 2.56 229
	6 0.77 815	66 1.81 954	126 2.10 037	186 2.26 951	246 2.39 094	306 2.48 572	366 2.56 348
	7 0.84 510	67 1.82 607	127 2.10 380	187 2.27 184	247 2.39 270	307 2.48 714	367 2.56 467
	8 0.90 309	68 1.83 251	128 2.10 721	188 2.27 416	248 2.39 445	308 2.48 855	368 2.56 585
	9 0.95 424	69 1.83 885	129 2.11 059	189 2.27 646	249 2.39 620	309 2.48 996	369 2.56 703
10	10 1.00 000	70 1.84 510	130 2.11 394	190 2.27 875	250 2.39 794	310 2.49 136	370 2.56 820
	11 1.04 139	71 1.85 126	131 3.11 727	191 2.28 103	251 2.39 967	311 2.49 276	371 2.56 937
	12 1.07 918	72 1.85 733	132 2.12 057	192 2.28 330	252 2.40 140	312 2.49 415	372 2.57 054
	13 1.11 394	73 1.86 332	133 2.12 385	193 2.28 556	253 2.40 312	313 2.49 554	373 2.57 171
	14 1.14 613	74 1.86 923	134 2.12 710	194 2.28 780	254 2.40 483	314 2.49 693	374 2.57 287
	15 1.17 609	75 1.87 506	135 2.13 033	195 2.29 003	255 2.40 654	315 2.49 831	375 2.57 403
	16 1.20 412	76 1.88 081	136 2.13 354	196 2.29 226	256 2.40 824	316 2.49 969	376 2.57 519
	17 1.23 045	77 1.88 649	137 2.13 672	197 2.29 447	257 2.40 993	317 2.50 106	377 2.57 634
	18 1.25 527	78 1.89 209	138 2.13 988	198 2.29 667	258 2.41 162	318 2.50 243	378 2.57 749
	19 1.27 875	79 1.89 763	139 2.14 301	199 2.29 885	259 2.41 330	319 2.50 379	379 2.57 864
20	20 1.30 103	80 1.90 309	140 2.14 613	200 2.30 103	260 2.41 497	320 2.50 515	380 2.57 978
	21 1.32 222	81 1.90 849	141 2.14 922	201 2.30 320	261 2.41 664	321 2.50 651	381 2.58 092
	22 1.34 242	82 1.91 381	142 2.15 229	202 2.30 535	262 2.41 830	322 2.50 786	382 2.58 206
	23 1.36 173	83 1.91 908	143 2.15 534	203 2.30 750	263 2.41 996	323 2.50 920	383 2.58 320
	24 1.38 021	84 1.92 428	144 2.15 836	204 2.30 963	264 2.42 160	324 2.51 055	384 2.58 433
	25 1.39 794	85 1.92 942	145 2.16 137	205 2.31 175	265 2.42 325	325 2.51 188	385 2.58 546
	26 1.41 497	86 1.93 450	146 2.16 435	206 2.31 387	266 2.42 488	326 2.51 322	386 2.58 659
	27 1.43 136	87 1.93 952	147 2.16 732	207 2.31 597	267 2.42 651	327 2.51 455	387 2.58 771
	28 1.44 716	88 1.94 448	148 2.17 026	208 2.31 806	268 2.42 813	328 2.51 587	388 2.58 883
	29 1.46 240	89 1.94 939	149 2.17 319	209 2.32 015	269 2.42 975	329 2.51 720	389 2.58 995
30	30 1.47 712	90 1.95 424	150 2.17 609	210 2.32 222	270 2.43 136	330 2.51 851	390 2.59 106
	31 1.49 136	91 1.95 904	151 2.17 898	211 2.32 428	271 2.43 297	331 2.51 983	391 2.59 218
	32 1.50 515	92 1.96 379	152 2.18 184	212 2.32 634	272 2.43 457	332 2.52 114	392 2.59 329
	33 1.51 851	93 1.96 848	153 2.18 469	213 2.32 838	273 2.43 616	333 2.52 244	393 2.59 439
	34 1.53 148	94 1.97 313	154 2.18 752	214 2.33 041	274 2.43 775	334 2.52 375	394 2.59 550
	35 1.54 407	95 1.97 772	155 2.19 033	215 2.33 244	275 2.43 933	335 2.52 504	395 2.59 660
	36 1.55 630	96 1.98 227	156 2.19 312	216 2.33 445	276 2.44 091	336 2.52 634	396 2.59 770
	37 1.56 820	97 1.98 677	157 2.19 590	217 2.33 646	277 2.44 248	337 2.52 763	397 2.59 879
	38 1.57 978	98 1.99 123	158 2.19 866	218 2.33 846	278 2.44 404	338 2.52 892	398 2.59 988
	39 1.59 106	99 1.99 564	159 2.20 140	219 2.34 044	279 2.44 560	339 2.53 020	399 2.60 097
40	40 1.60 206	100 2.00 000	160 2.20 412	220 2.34 242	280 2.44 716	340 2.53 148	400 2.60 206
	41 1.61 278	101 2.00 432	161 2.20 683	221 2.34 439	281 2.44 871	341 2.53 275	401 2.60 314
	42 1.62 325	102 2.00 860	162 2.20 952	222 2.34 635	282 2.45 025	342 2.53 403	402 2.60 423
	43 1.63 347	103 2.01 284	163 2.21 219	223 2.34 830	283 2.45 179	343 2.53 529	403 2.60 531
	44 1.64 345	104 2.01 703	164 2.21 484	224 2.35 025	284 2.45 332	344 2.53 656	404 2.60 638
	45 1.65 321	105 2.02 119	165 2.21 748	225 2.35 218	285 2.45 484	345 2.53 782	405 2.60 746
	46 1.66 276	106 2.02 531	166 2.22 011	226 2.35 411	286 2.45 637	346 2.53 908	406 2.60 853
	47 1.67 210	107 2.02 938	167 2.22 272	227 2.35 603	287 2.45 788	347 2.54 033	407 2.60 959
	48 1.68 124	108 2.03 342	168 2.22 531	228 2.35 793	288 2.45 939	348 2.54 158	408 2.61 066
	49 1.69 020	109 2.03 743	169 2.22 789	229 2.35 984	289 2.46 090	349 2.54 283	409 2.61 172
50	50 1.69 897	110 2.04 139	170 2.23 045	230 2.36 173	290 2.46 240	350 2.54 407	410 2.61 278
	51 1.70 757	111 2.04 532	171 2.23 300	231 2.36 361	291 2.46 389	351 2.54 531	411 2.61 384
	52 1.71 600	112 2.04 922	172 2.23 553	232 2.36 549	292 2.46 538	352 2.54 654	412 2.61 490
	53 1.72 428	113 2.05 308	173 2.23 805	233 2.36 736	293 2.46 687	353 2.54 777	413 2.61 595
	54 1.73 239	114 2.05 690	174 2.24 055	234 2.36 922	294 2.46 835	354 2.54 900	414 2.61 700
	55 1.74 036	115 2.06 070	175 2.24 304	235 2.37 107	295 2.46 982	355 2.55 023	415 2.61 805
	56 1.74 819	116 2.06 446	176 2.24 551	236 2.37 291	296 2.47 129	356 2.55 145	416 2.61 909
	57 1.75 587	117 2.06 819	177 2.24 797	237 2.37 475	297 2.47 276	357 2.55 267	417 2.62 014
	58 1.76 343	118 2.07 188	178 2.25 042	238 2.37 658	298 2.47 422	358 2.55 388	418 2.62 118
	59 1.77 085	119 2.07 555	179 2.25 285	239 2.37 840	299 2.47 567	359 2.55 509	419 2.62 221
60	60 1.77 815	120 2.07 918	180 2.25 527	240 2.38 021	300 2.47 712	360 2.55 630	420 2.62 325

Og	N.	O	I	2	3	4	5	6	7	8	9	P. P.	Corr.
7'	42	62 325	428	531	634	737	839	941	*043	*144	*246		Sin og
10	43	63 347	448	548	649	749	849	949	*048	*147	*246		7' + O
20	44	64 345	444	542	640	738	836	933	*031	*128	*225		8 I
30	45	65 321	418	514	610	706	801	896	992	*087	*181		9 I
40	46	66 276	370	464	558	652	745	839	932	*025	*117		10 I
50	47	67 210	302	394	486	578	669	761	852	943	*034		11 I
8'	48	68 124	215	305	395	485	574	664	753	842	931		12 I
10	49	69 020	108	197	285	373	461	548	636	723	810		13 I
20	50	897	984	*070	*157	*243	*329	*415	*501	*586	*672		14 I
30	51	70 757	842	927	*012	*096	*181	*265	*349	*433	*517		15 2
40	52	71 600	684	767	850	933	*016	*099	*181	*263	*346		16 2
50	53	72 428	509	591	673	754	835	916	997	*078	*159		17 2
9'	54	73 239	320	400	480	560	640	719	799	878	957		Tang og
10	55	74 036	115	194	273	351	429	507	586	663	741		7' + O
20	56	819	896	974	*031	*128	*205	*282	*358	*435	*511		8 I
30	57	75 587	664	740	815	891	967	*042	*118	*193	*268		9 I
40	58	76 343	418	492	567	641	716	790	864	938	*012		10 I
50	59	77 085	159	232	305	379	452	525	597	670	743		11 I
10'	60	815	887	960	*032	*104	*176	*247	*319	*390	*462		12 2
10	61	78 533	604	675	746	817	888	958	*029	*099	*169		13 2
20	62	79 239	309	379	449	518	588	657	727	796	865		14 2
30	63	934	*003	*072	*140	*209	*277	*346	*414	*482	*550		15 3
40	64	80 618	686	754	821	889	956	*023	*090	*158	*224		16 3
50	65	81 291	358	425	491	558	624	690	757	823	889		17 3
11'	66	954	*020	*086	*151	*217	*282	*347	*413	*478	*543		
10	67	82 607	672	737	802	866	930	995	*059	*123	*187		
20	68	83 251	315	378	442	506	569	632	696	759	822		
30	69	885	948	*011	*073	*136	*198	*261	*323	*386	*448		
40	70	84 510	572	634	696	757	819	880	942	*003	*065		
50	71	85 126	187	248	309	370	431	491	552	612	673		
12'	72	733	794	854	914	974	*034	*094	*153	*213	*273		
10	73	86 332	392	451	510	570	629	688	747	806	864		
20	74	923	982	*040	*099	*157	*216	*274	*332	*390	*448		
30	75	87 506	564	622	679	737	795	852	910	967	*024		
40	76	88 081	138	195	252	309	366	423	480	536	593		
50	77	649	705	762	818	874	930	986	*042	*098	*154		
13'	78	89 209	265	321	376	432	487	542	597	653	708		
10	79	763	818	873	927	982	*037	*091	*146	*200	*255		
20	80	90 309	363	417	472	526	580	634	687	741	795		
30	81	849	902	956	*009	*062	*116	*169	*222	*275	*328		
40	82	91 381	434	487	540	593	645	698	751	803	855		
50	83	908	960	*012	*065	*117	*169	*221	*273	*324	*376		
14'	84	92 428	480	531	583	634	686	737	788	840	891		
10	85	942	993	*044	*095	*146	*197	*247	*298	*349	*399		
20	86	93 450	500	551	601	651	702	752	802	852	902		
30	87	952	*002	*052	*101	*151	*201	*250	*300	*349	*399		
40	88	94 448	498	547	596	645	694	743	792	841	890		
50	89	939	988	*036	*085	*134	*182	*231	*279	*328	*376		
15'	90	95 424	472	521	569	617	665	713	761	809	856		
10	91	904	952	999	*047	*095	*142	*190	*237	*284	*332		
20	92	96 379	426	473	520	567	614	661	708	755	802		
30	93	848	895	942	988	*035	*081	*128	*174	*220	*267		
40	94	97 313	359	405	451	497	543	589	635	681	727		
50	95	772	818	864	909	955	*000	*046	*091	*137	*182		
16'	96	98 227	272	318	363	408	453	498	543	588	632		
10	97	677	722	767	811	856	900	945	989	*034	*078		
20	98	99 123	167	211	255	300	344	388	432	476	520		
30	99	564	607	651	695	739	782	826	870	913	957		
40	100	00 000	043	087	130	173	217	260	303	346	389		
50	101	432	475	518	561	604	647	689	732	775	817		
"	N.	O	I	2	3	4	5	6	7	8	9		

S. 4,68 5573; T. 4,68 5578												V. 4,68 5575	
Og	N.	0	1	2	3	4	5	6	7	8	9	P. P.	Corr.
17'	102	00 860	903	945	988	*030	*072	*115	*157	*199	*242	43 42	Sin o ^s
10	103	01 284	326	368	410	452	494	536	578	620	662	1 4,3 4,2	17' + 2
20	104	703	745	787	828	870	912	953	995	*036	*078	2 8,6 8,4	18 + 2
30	105	02 119	160	202	243	284	325	366	407	449	490	3 12,9 12,6	19 2
40	106	531	572	612	653	694	735	776	816	857	898	4 17,2 16,8	20 3
50	107	938	979	*019	*060	*100	*141	*181	*222	*262	*302	5 21,5 21,0	21 3
18	108	03 342	383	423	463	503	543	583	623	663	703	6 25,8 25,2	22 3
10	109	743	782	822	862	902	941	981	*021	*060	*100	7 30,1 29,4	23 3
20	110	04 139	179	218	258	297	336	376	415	454	493	8 34,4 33,6	24 4
30	111	532	571	610	650	689	727	766	805	844	883	9 38,7 37,8	25 4
40	112	922	961	999	*038	*077	*115	*154	*192	*231	*269	1 4,1 4,0	26 4
50	113	05 308	346	385	423	461	500	538	576	614	652	2 8,2 8,0	27 5
19'	114	690	729	767	805	843	881	918	956	994	*032	3 12,3 12,0	Tang o ^s
10	115	06 070	108	145	183	221	258	296	333	371	408	4 16,4 16,0	17' + 3
20	116	446	483	521	558	595	633	670	707	744	781	5 20,5 20,0	18 + 4
30	117	819	856	893	930	967	*004	*041	*078	*115	*151	6 24,6 24,0	19 4
40	118	07 188	225	262	298	335	372	408	445	482	518	7 28,7 28,0	20 5
50	119	555	591	628	664	700	737	773	809	846	882	8 32,8 32,0	21 5
20'	120	918	954	990	*027	*063	*099	*135	*171	*207	*243	9 36,9 36,0	22 6
10	121	08 279	314	350	386	422	458	493	529	565	600	1 3,9 3,8	23 6
20	122	636	672	707	743	778	814	849	884	920	955	2 7,8 7,6	24 7
30	123	991	*026	*061	*096	*132	*167	*202	*237	*272	*307	3 11,7 11,4	25 8
40	124	09 342	377	412	447	482	517	552	587	621	656	4 15,6 15,2	26 8
50	125	691	726	760	795	830	864	899	934	968	*003	5 19,5 19,0	27 9
21'	126	10 037	072	106	140	175	209	243	278	312	346	6 23,4 22,8	
10	127	380	415	449	483	517	551	585	619	653	687	7 27,3 26,6	
20	128	721	755	789	823	857	890	924	958	992	*025	8 31,2 30,4	
30	129	11 059	093	126	160	193	227	261	294	327	361	9 35,1 34,2	
40	130	394	428	461	494	528	561	594	628	661	694	1 3,7 3,6	
50	131	727	760	793	826	860	893	926	959	992	*024	2 7,4 7,2	
22'	132	12 057	090	123	156	189	222	254	287	320	352	3 11,1 10,8	
10	133	385	418	450	483	516	548	581	613	646	678	4 14,8 14,4	
20	134	710	743	775	808	840	872	905	937	969	*001	5 18,5 18,0	
30	135	13 033	066	098	130	162	194	226	258	290	322	6 22,2 21,6	
40	136	354	386	418	450	481	513	545	577	609	640	7 25,9 25,2	
50	137	672	704	735	767	799	830	862	893	925	956	8 29,6 28,8	
23'	138	988	*019	*051	*082	*114	*145	*176	*208	*239	*270	9 33,3 32,4	
10	139	14 301	333	364	395	426	457	489	520	551	582	1 3,5 3,4	
20	140	613	644	675	706	737	768	799	829	860	891	2 7,0 6,8	
30	141	922	953	983	*014	*045	*076	*106	*137	*168	*198	3 10,5 10,2	
40	142	15 229	259	290	320	351	381	412	442	473	503	4 14,0 13,6	
50	143	534	564	594	625	655	685	715	746	776	806	5 17,5 17,0	
24'	144	836	866	897	927	957	987	*017	*047	*077	*107	6 21,0 20,4	
10	145	16 137	167	197	227	256	286	316	346	376	406	7 24,5 23,8	
20	146	435	465	495	524	554	584	613	643	673	702	8 28,0 27,2	
30	147	732	761	791	820	850	879	909	938	967	997	9 31,5 30,6	
40	148	17 026	056	085	114	143	173	202	231	260	289	1 3,3 3,2	
50	149	319	348	377	406	435	464	493	522	551	580	2 6,6 6,4	
25'	150	609	638	667	696	725	754	782	811	840	869	3 9,9 9,6	
10	151	898	926	955	984	*013	*041	*070	*099	*127	*156	4 13,2 12,8	
20	152	18 184	213	241	270	298	327	355	384	412	441	5 16,5 16,0	
30	153	469	498	526	554	583	611	639	667	696	724	6 19,8 19,2	
40	154	752	780	808	837	865	893	921	949	977	*005	7 23,1 22,4	
50	155	19 033	061	089	117	145	173	201	229	257	285	8 26,4 25,6	
26'	156	312	340	368	396	424	451	479	507	535	562	9 29,7 28,8	
10	157	590	618	645	673	700	728	756	783	811	838	1 3,1 3,0	
20	158	866	893	921	948	976	*003	*030	*058	*085	*112	2 6,2 6,0	
30	159	20 140	167	194	222	249	276	303	330	358	385	3 9,3 9,0	
40	160	412	439	466	493	520	548	575	602	629	656	4 12,4 12,0	
50	161	683	710	737	763	790	817	844	871	898	925	5 15,5 15,0	
"	N.	0	1	2	3	4	5	6	7	8	9	6 18,6 18,0	
												7 21,7 21,0	
												8 24,8 24,0	
												9 27,9 27,0	
												29 28	
												1 2,9 2,8	
												2 5,8 5,6	
												3 8,7 8,4	
												4 11,6 11,2	
												5 14,5 14,0	
												6 17,4 16,8	
												7 20,3 19,6	
												8 23,2 22,4	
												9 26,1 25,2	

S. 4,68 5570; T. 4,68 5584

V. 4,68 5575

Og	N.	0	1	2	3	4	5	6	7	8	9	P. P.	Corr.
27'	162	20 952	978	*005	*032	*059	*085	*112	*139	*165	*192	27	26
10	163	21 219	245	272	299	325	352	378	405	431	458	1 2,7	2,6
20	164	484	511	537	564	590	617	643	669	696	722	2 5,4	5,2
30	165	748	775	801	827	854	880	906	932	958	985	3 8,1	7,8
40	166	22 011	037	063	089	115	141	167	194	220	246	4 10,8	10,4
50	167	272	298	324	350	376	401	427	453	479	505	5 13,5	13,0
28'	168	531	557	583	608	634	660	686	712	737	763	6 16,2	15,6
10	169	789	814	840	866	891	917	943	968	994	*019	7 18,9	18,2
20	170	23 045	070	096	121	147	172	198	223	249	274	8 21,6	20,8
30	171	300	325	350	376	401	426	452	477	502	528	9 24,3	23,4
40	172	553	578	603	629	654	679	704	729	754	779	1 2,5	2,4
50	173	805	830	855	880	905	930	955	980	*005	*030	2 5,0	4,8
29'	174	24 055	080	105	130	155	180	204	229	254	279	3 7,5	7,2
10	175	304	329	353	378	403	428	452	477	502	527	4 10,0	9,6
20	176	551	576	601	625	650	674	699	724	748	773	5 12,5	12,0
30	177	797	822	846	871	895	920	944	969	993	*018	6 15,0	14,4
40	178	25 042	066	091	115	139	164	188	212	237	261	7 17,5	16,8
50	179	285	310	334	358	382	406	431	455	479	503	8 20,0	19,2
30'	180	527	551	575	600	624	648	672	696	720	744	9 22,5	21,6
10	181	768	792	816	840	864	888	912	935	959	983	1 2,3	2,2
20	182	26 007	031	055	079	102	126	150	174	198	221	2 4,6	4,4
30	183	245	269	293	316	340	364	387	411	435	458	3 6,9	6,6
40	184	482	505	529	553	576	600	623	647	670	694	4 9,2	8,8
50	185	717	741	764	788	811	834	858	881	905	928	5 11,5	11,0
31'	186	951	975	998	*021	*045	*068	*091	*114	*138	*161	6 13,8	13,2
10	187	27 184	207	231	254	277	300	323	346	370	393	7 16,1	15,4
20	188	416	439	462	485	508	531	554	577	600	623	8 18,4	17,6
30	189	646	669	692	715	738	761	784	807	830	852	9 20,7	19,8
40	190	875	898	921	944	967	989	*012	*035	*058	*081	1 2,1	2,0
50	191	28 103	126	149	171	194	217	240	262	285	307	2 4,2	4,0
32'	192	330	353	375	398	421	443	466	488	511	533	3 6,3	6,0
10	193	556	578	601	623	646	668	691	713	735	758	4 8,4	8,0
20	194	780	803	825	847	870	892	914	937	959	981	5 10,5	10,0
30	195	29 003	026	048	070	092	115	137	159	181	203	6 12,6	12,0
40	196	226	248	270	292	314	336	358	380	403	425	7 14,7	14,0
50	197	447	469	491	513	535	557	579	601	623	645	8 16,8	16,0
33'	198	667	688	710	732	754	776	798	820	842	863	9 18,9	18,0
10	199	885	907	929	951	973	994	*016	*038	*060	*081	1 1,9	1,8
20	200	30 103	125	146	168	190	211	233	255	276	298	2 3,8	3,6
30	201	320	341	363	384	406	428	449	471	492	514	3 5,7	5,4
40	202	535	557	578	600	621	643	664	685	707	728	4 7,6	7,2
50	203	750	771	792	814	835	856	878	899	920	942	5 9,5	9,0
34'	204	963	984	*006	*027	*048	*069	*091	*112	*133	*154	6 11,4	10,8
10	205	31 175	197	218	239	260	281	302	323	345	366	7 13,3	12,6
20	206	387	408	429	450	471	492	513	534	555	576	8 15,2	14,4
30	207	597	618	639	660	681	702	723	744	765	785	9 17,1	16,2
40	208	806	827	848	869	890	911	931	952	973	994	1 1,9	1,8
50	209	32 015	035	056	077	098	118	139	160	181	201	2 3,8	3,6
35'	210	222	243	263	284	305	325	346	366	387	408	3 5,7	5,4
10	211	428	449	469	490	510	531	552	572	593	613	4 7,6	7,2
20	212	634	654	675	695	715	736	756	777	797	818	5 9,5	9,0
30	213	838	858	879	899	919	940	960	980	*001	*021	6 11,4	10,8
40	214	33 041	062	082	102	122	143	163	183	203	224	7 13,3	12,6
50	215	244	264	284	304	325	345	365	385	405	425	8 15,2	14,4
36'	216	445	465	486	506	526	546	566	586	606	626	9 17,1	16,2
10	217	646	666	686	706	726	746	766	786	806	826	1 1,9	1,8
20	218	846	866	885	905	925	945	965	985	*005	*025	2 3,8	3,6
30	219	34 044	064	084	104	124	143	163	183	203	223	3 5,7	5,4
40	220	242	262	282	301	321	341	361	380	400	420	4 7,6	7,2
50	221	439	459	479	498	518	537	557	577	596	616	5 9,5	9,0
"	N.	0	1	2	3	4	5	6	7	8	9		

S. 4,68 5566; T. 4,68 5592

V. 4,68 5575

Og	N.	0	1	2	3	4	5	6	7	8	9	P. P.	Corr.
37'	222	34 635	655	674	694	713	733	753	772	792	811	20	Sin 08
10	223	830	850	869	889	908	928	947	967	986	*005	1 2,0	37' + 9
20	224	35 025	044	064	083	102	122	141	160	180	199	2 4,0	38 9
30	225	218	238	257	276	295	315	334	353	372	392	3 6,0	39 9
40	226	411	430	449	468	488	507	526	545	564	583	4 8,0	40 10
50	227	603	622	641	660	679	698	717	736	755	774	5 10,0	41 10
38'	228	793	813	832	851	870	889	908	927	946	965	6 12,0	42 11
10	229	984	*003	*021	*040	*059	*078	*097	*116	*135	*154	7 14,0	43 11
20	230	36 173	192	211	229	248	267	286	305	324	342	8 16,0	44 12
30	231	361	380	399	418	436	455	474	493	511	530	9 18,0	45 13
40	232	549	568	586	605	624	642	661	680	698	717	19	46 13
50	233	736	754	773	791	810	829	847	866	884	903	1 1,9	47 14
39'	234	922	940	959	977	996	*014	*033	*051	*070	*088	2 3,8	Tang 08
10	235	37 107	125	144	162	181	199	218	236	254	273	3 5,7	37' + 17
20	236	291	310	328	346	365	383	401	420	438	457	4 7,6	38 18
30	237	475	493	511	530	548	566	585	603	621	639	5 9,5	39 18
40	238	658	676	694	712	731	749	767	785	803	822	6 11,4	40 19
50	239	840	858	876	894	912	931	949	967	985	*003	7 13,3	41 20
40'	240	38 021	039	057	075	093	112	130	148	166	184	8 15,2	42 21
10	241	202	220	238	256	274	292	310	328	346	364	9 17,1	43 23
20	242	382	399	417	435	453	471	489	507	525	543	18	44 24
30	243	561	578	596	614	632	650	668	686	703	721	1 1,8	45 25
40	244	739	757	775	792	810	828	846	863	881	899	2 3,6	46 26
50	245	917	934	952	970	987	*005	*023	*041	*058	*076	3 5,4	47 27
41'	246	39 094	111	129	146	164	182	199	217	235	252	4 7,2	
10	247	270	287	305	322	340	358	375	393	410	428	5 9,0	
20	248	445	463	480	498	515	533	550	568	585	602	6 10,8	
30	249	620	637	655	672	690	707	724	742	759	777	7 12,6	
40	250	794	811	829	846	863	881	898	915	933	950	8 14,4	
50	251	967	985	*002	*019	*037	*054	*071	*088	*106	*123	9 16,2	
42'	252	40 140	157	175	192	209	226	243	261	278	295	17	
10	253	312	329	346	364	381	398	415	432	449	466	1 1,7	
20	254	483	500	518	535	552	569	586	603	620	637	2 3,4	
30	255	654	671	688	705	722	739	756	773	790	807	3 5,1	
40	256	824	841	858	875	892	909	926	943	960	976	4 6,8	
50	257	993	*010	*027	*044	*061	*078	*095	*111	*128	*145	5 8,5	
43'	258	41 162	179	196	212	229	246	263	280	296	313	6 10,2	
10	259	330	347	363	380	397	414	430	447	464	481	7 11,9	
20	260	497	514	531	547	564	581	597	614	631	647	8 13,6	
30	261	664	681	697	714	731	747	764	780	797	814	9 15,3	
40	262	830	847	863	880	896	913	929	946	963	979	16	
50	263	996	*012	*029	*045	*062	*078	*095	*111	*127	*144	1 1,6	
44'	264	42 160	177	193	210	226	243	259	275	292	308	2 3,2	
10	265	325	341	357	374	390	406	423	439	455	472	3 4,8	
20	266	488	504	521	537	553	570	586	602	619	635	4 6,4	
30	267	651	667	684	700	716	732	749	765	781	797	5 8,0	
40	268	813	830	846	862	878	894	911	927	943	959	6 9,6	
50	269	975	991	*008	*024	*040	*056	*072	*088	*104	*120	7 11,2	
45'	270	43 136	152	169	185	201	217	233	249	265	281	8 12,8	
10	271	297	313	329	345	361	377	393	409	425	441	9 14,4	
20	272	457	473	489	505	521	537	553	569	584	600	15	
30	273	616	632	648	664	680	696	712	727	743	759	1 1,5	
40	274	775	791	807	823	838	854	870	886	902	917	2 3,0	
50	275	933	949	965	981	996	*012	*028	*044	*059	*075	3 4,5	
46'	276	44 091	107	122	138	154	170	185	201	217	232	4 6,0	
10	277	248	264	279	295	311	326	342	358	373	389	5 7,5	
20	278	404	420	436	451	467	483	498	514	529	545	6 9,0	
30	279	560	576	592	607	623	638	654	669	685	700	7 10,5	
40	280	716	731	747	762	778	793	809	824	840	855	8 12,0	
50	281	871	886	902	917	932	948	963	979	994	*010	9 13,5	
"	N.	0	1	2	3	4	5	6	7	8	9		

S. 4,68 5561; T. 4,68 5602

V. 4,68 5575

O ^g	N.	0	1	2	3	4	5	6	7	8	9	P. P.	Corr.
47'	282	45 025	040	056	071	086	102	117	133	148	163	16	Sin 08
10	283	179	194	209	225	240	255	271	286	301	317	1	1,6
20	284	332	347	362	378	393	408	423	439	454	469	2	3,2
30	285	484	500	515	530	545	561	576	591	606	621	3	4,8
40	286	637	652	667	682	697	712	728	743	758	773	4	6,4
50	287	788	803	818	834	849	864	879	894	909	924	5	8,0
48'	288	939	954	969	984	*000	*015	*030	*045	*060	*075	6	9,6
10	289	46 090	105	120	135	150	165	180	195	210	225	7	11,2
20	290	240	255	270	285	300	315	330	345	359	374	8	12,8
30	291	389	404	419	434	449	464	479	494	509	523	9	14,4
40	292	538	553	568	583	598	613	627	642	657	672	15	
50	293	687	702	716	731	746	761	776	790	805	820	1	1,5
49'	294	835	850	864	879	894	909	923	938	953	967	2	3,0
10	295	982	997	*012	*026	*041	*056	*070	*085	*100	*114	3	4,5
20	296	47 129	144	159	173	188	202	217	232	246	261	4	6,0
30	297	276	290	305	319	334	349	363	378	392	407	5	7,5
40	298	422	436	451	465	480	494	509	524	538	553	6	9,0
50	299	567	582	596	611	625	640	654	669	683	698	7	10,5
50'	300	712	727	741	756	770	784	799	813	828	842	8	12,0
10	301	857	871	885	900	914	929	943	958	972	986	9	13,5
20	302	48 001	015	029	044	058	073	087	101	116	130	14	
30	303	144	159	173	187	202	216	230	244	259	273	1	1,4
40	304	287	302	316	330	344	359	373	387	401	416	2	2,8
50	305	430	444	458	473	487	501	515	530	544	558	3	4,2
51'	306	572	586	601	615	629	643	657	671	686	700	4	5,6
10	307	714	728	742	756	770	785	799	813	827	841	5	7,0
20	308	855	869	883	897	911	926	940	954	968	982	6	8,4
30	309	996	*010	*024	*038	*052	*066	*080	*094	*108	*122	7	9,8
40	310	49 136	150	164	178	192	206	220	234	248	262	8	11,2
50	311	276	290	304	318	332	346	360	374	388	402	9	12,6
52'	312	415	429	443	457	471	485	499	513	527	541	13	
10	313	554	568	582	596	610	624	638	651	665	679	1	1,3
20	314	693	707	721	734	748	762	776	790	803	817	2	2,6
30	315	831	845	859	872	886	900	914	927	941	955	3	3,9
40	316	969	982	996	*010	*024	*037	*051	*065	*079	*092	4	5,2
50	317	50 106	120	133	147	161	174	188	202	215	229	5	6,5
53'	318	243	256	270	284	297	311	325	338	352	365	6	7,8
10	319	379	393	406	420	433	447	461	474	488	501	7	9,1
20	320	515	529	542	556	569	583	596	610	623	637	8	10,4
30	321	651	664	678	691	705	718	732	745	759	772	9	11,7
40	322	786	799	813	826	840	853	866	880	893	907	12	
50	323	920	934	947	961	974	987	*001	*014	*028	*041	1	1,2
54'	324	51 055	068	081	095	108	121	135	148	162	175	2	2,4
10	325	188	202	215	228	242	255	268	282	295	308	3	3,6
20	326	322	335	348	362	375	388	402	415	428	441	4	4,8
30	327	455	468	481	495	508	521	534	548	561	574	5	6,0
40	328	587	601	614	627	640	654	667	680	693	706	6	7,2
50	329	720	733	746	759	772	786	799	812	825	838	7	8,4
55'	330	851	865	878	891	904	917	930	943	957	970	8	9,6
10	331	983	996	*009	*022	*035	*048	*061	*075	*088	*101	9	10,8
20	332	52 114	127	140	153	166	179	192	205	218	231		
30	333	244	257	270	284	297	310	323	336	349	362		
40	334	375	388	401	414	427	440	453	466	479	492		
50	335	504	517	530	543	556	569	582	595	608	621		
56'	336	634	647	660	673	686	699	711	724	737	750		
10	337	763	776	789	802	815	827	840	853	866	879		
20	338	892	905	917	930	943	956	969	982	994	*007		
30	339	53 020	033	046	058	071	084	097	110	122	135		
40	340	148	161	173	186	199	212	224	237	250	263		
50	341	275	288	301	314	326	339	352	364	377	390		
"	N.	0	1	2	3	4	5	6	7	8	9		

S. 4,68 5555; T. 4,68 5615

V. 4,68 5575

Og	N.	0	1	2	3	4	5	6	7	8	9	P. P.	Corr.
57'	342	53 403	415	428	441	453	466	479	491	504	517	I 3	Sin og
10	343	529	542	555	567	580	593	605	618	631	643	1 3	57' + 20
20	344	656	668	681	694	706	719	732	744	757	769	2 6	58 21
30	345	782	794	807	820	832	845	857	870	882	895	3 9	59 21
40	346	908	920	933	945	958	970	983	995	*008	*020	4 2	1g
50	347	54 033	045	058	070	083	095	108	120	133	145	5 5	0' 22
58'	348	158	170	183	195	208	220	233	245	258	270	6 8	1 23
10	349	283	295	307	320	332	345	357	370	382	394	7 1	2 24
20	350	407	419	432	444	456	469	481	494	506	518	8 4	3 24
30	351	531	543	555	568	580	593	605	617	630	642	9 7	4 25
40	352	654	667	679	691	704	716	728	741	753	765	I 2	5 26
50	353	777	790	802	814	827	839	851	864	876	888	1 2	6 27
59'	354	900	913	925	937	949	962	974	986	998	*011	2 4	7 28
10	355	55 023	035	047	060	072	084	096	108	121	133	3 6	Tang og
20	356	145	157	169	182	194	206	218	230	242	255	4 8	57' + 40
30	357	267	279	291	303	315	328	340	352	364	376	5 0	58 41
40	358	388	400	413	425	437	449	461	473	485	497	6 2	59 43
50	359	509	522	534	546	558	570	582	594	606	618	7 4	1g
18	360	630	642	654	666	678	691	703	715	727	739	8 6	0 44
10	361	751	763	775	787	799	811	823	835	847	859	9 8	1 45
20	362	871	883	895	907	919	931	943	955	967	979	I 1	2 47
30	363	991	*003	*015	*027	*038	*050	*062	*074	*086	*098	1 1	3 48
40	364	56 110	122	134	146	158	170	182	194	205	217	2 2	4 50
50	365	229	241	253	265	277	289	301	312	324	336	3 3	5 52
1'	366	348	360	372	384	396	407	419	431	443	455	4 4	6 53
10	367	467	478	490	502	514	526	538	549	561	573	5 5	7 55
20	368	585	597	608	620	632	644	656	667	679	691	6 6	
30	369	703	714	726	738	750	761	773	785	797	808	7 7	
40	370	820	832	844	855	867	879	891	902	914	926	8 8	
50	371	937	949	961	972	984	996	*008	*019	*031	*043	9 9	
2'	372	57 054	066	078	089	101	113	124	136	148	159	I 0	
10	373	171	183	194	206	217	229	241	252	264	276	1 0	
20	374	287	299	310	322	334	345	357	368	380	392	2 0	
30	375	403	415	426	438	449	461	473	484	496	507	3 0	
40	376	519	530	542	553	565	576	588	600	611	623	4 0	
50	377	634	646	657	669	680	692	703	715	726	738	5 0	
3'	378	749	761	772	784	795	807	818	830	841	852	6 0	
10	379	864	875	887	898	910	921	933	944	955	967	7 0	
20	380	978	990	*001	*013	*024	*035	*047	*058	*070	*081	8 0	
30	381	58 092	104	115	127	138	149	161	172	184	195	9 0	
40	382	206	218	229	240	252	263	274	286	297	309		
50	383	320	331	343	354	365	377	388	399	410	422		
4'	384	433	444	456	467	478	490	501	512	524	535		
10	385	546	557	569	580	591	602	614	625	636	647		
20	386	659	670	681	692	704	715	726	737	749	760		
30	387	771	782	794	805	816	827	838	850	861	872		
40	388	883	894	906	917	928	939	950	961	973	984		
50	389	995	*006	*017	*028	*040	*051	*062	*073	*084	*095		
5'	390	59 106	118	129	140	151	162	173	184	195	207		
10	391	218	229	240	251	262	273	284	295	306	318		
20	392	329	340	351	362	373	384	395	406	417	428		
30	393	439	450	461	472	483	494	506	517	528	539		
40	394	550	561	572	583	594	605	616	627	638	649		
50	395	660	671	682	693	704	715	726	737	748	759		
6'	396	770	780	791	802	813	824	835	846	857	868		
10	397	879	890	901	912	923	934	945	956	966	977		
20	398	988	999	*010	*021	*032	*043	*054	*065	*076	*086		
30	399	60 097	108	119	130	141	152	163	173	184	195		
40	400	206	217	228	239	249	260	271	282	293	304		
50	401	314	325	336	347	358	369	379	390	401	412		
"	N.	0	1	2	3	4	5	6	7	8	9		

S. 4,68 5547; T. 4,68 5630

V. 4,68 5575

18	N.	0	1	2	3	4	5	6	7	8	9	P. P.	Corr.
7'	402	60 423	433	444	455	466	477	487	498	509	520	II	Sin 18
10	403	531	541	552	563	574	584	595	606	617	627	I 1,1	7' + 28
20	404	638	649	660	670	681	692	703	713	724	735	2 2,2	8 28
30	405	746	756	767	778	788	799	810	821	831	842	3 3,3	9 29
40	406	853	863	874	885	895	906	917	927	938	949	4 4,4	10 30
50	407	959	970	981	991	*002	*013	*023	*034	*045	*055	5 5,5	11 31
8'	408	61 066	077	087	098	109	119	130	140	151	162	6 6,6	12 32
10	409	172	183	194	204	215	225	236	247	257	268	7 7,7	13 33
20	410	278	289	300	310	321	331	342	352	363	374	8 8,8	14 34
30	411	384	395	405	416	426	437	448	458	469	479	9 9,9	15 35
40	412	490	500	511	521	532	542	553	563	574	584	IO	16 36
50	413	595	606	616	627	637	648	658	669	679	690	I 1,0	17 36
9'	414	700	711	721	731	742	752	763	773	784	794	2 2,0	Tang 18
10	415	805	815	826	836	847	857	868	878	888	899	3 3,0	7' + 55
20	416	909	920	930	941	951	962	972	982	993	*003	4 4,0	8 57
30	417	62 014	024	034	045	055	066	076	086	097	107	5 5,0	9 58
40	418	118	128	138	149	159	170	180	190	201	211	6 6,0	10 60
50	419	221	232	242	252	263	273	284	294	304	315	7 7,0	11 62
10'	420	325	335	346	356	366	377	387	397	408	418	8 8,0	12 63
10	421	428	439	449	459	469	480	490	500	511	521	9 9,0	13 65
20	422	531	542	552	562	572	583	593	603	613	624	9	14 67
30	423	634	644	655	665	675	685	696	706	716	726	I 0,9	15 69
40	424	737	747	757	767	778	788	798	808	818	829	2 1,8	16 71
50	425	839	849	859	870	880	890	900	910	921	931	3 2,7	17 73
11'	426	941	951	961	972	982	992	*002	*012	*022	*033	4 3,6	
10	427	63 043	053	063	073	083	094	104	114	124	134	5 4,5	
20	428	144	155	165	175	185	195	205	215	225	236	6 5,4	
30	429	246	256	266	276	286	296	306	317	327	337	7 6,3	
40	430	347	357	367	377	387	397	407	417	428	438	8 7,2	
50	431	448	458	468	478	488	498	508	518	528	538	9 8,1	
12'	432	548	558	568	579	589	599	609	619	629	639		
10	433	649	659	669	679	689	699	709	719	729	739		
20	434	749	759	769	779	789	799	809	819	829	839		
30	435	849	859	869	879	889	899	909	919	929	939		
40	436	949	959	969	979	988	998	*008	*018	*028	*038		
50	437	64 048	058	068	078	088	098	108	118	128	137		
13'	438	147	157	167	177	187	197	207	217	227	237		
10	439	246	256	266	276	286	296	306	316	326	335		
20	440	345	355	365	375	385	395	404	414	424	434		
30	441	444	454	464	473	483	493	503	513	523	532		
40	442	542	552	562	572	582	591	601	611	621	631		
50	443	640	650	660	670	680	689	699	709	719	729		
14'	444	738	748	758	768	777	787	797	807	816	826		
10	445	836	846	856	865	875	885	895	904	914	924		
20	446	933	943	953	963	972	982	992	*002	*011	*021		
30	447	65 031	040	050	060	070	079	089	099	108	118		
40	448	128	137	147	157	167	176	186	196	205	215		
50	449	225	234	244	254	263	273	283	292	302	312		
15'	450	321	331	341	350	360	369	379	389	398	408		
10	451	418	427	437	447	456	466	475	485	495	504		
20	452	514	523	533	543	552	562	571	581	591	600		
30	453	610	619	629	639	648	658	667	677	686	696		
40	454	706	715	725	734	744	753	763	772	782	792		
50	455	801	811	820	830	839	849	858	868	877	887		
16'	456	896	906	916	925	935	944	954	963	973	982		
10	457	992	*001	*011	*020	*030	*039	*049	*058	*068	*077		
20	458	66 087	096	106	115	124	134	143	153	162	172		
30	459	181	191	200	210	219	229	238	247	257	266		
40	460	276	285	295	304	314	323	332	342	351	361		
50	461	370	380	389	398	408	417	427	436	445	455		
"	N.	0	1	2	3	4	5	6	7	8	9		

S. 4,68 5539; T. 4,68 5648

V. 4,68 5575

18	N.	O	I	2	3	4	5	6	7	8	9	P. P.	Corr.
17'	462	66 464	474	483	492	502	511	521	530	539	549	10	Sin 18
10	463	558	567	577	586	596	605	614	624	633	642	1	17' + 36
20	464	652	661	671	680	689	699	708	717	727	736	2	18 37
30	465	745	755	764	773	783	792	801	811	820	829	3	19 38
40	466	839	848	857	867	876	885	894	904	913	922	4	20 39
50	467	932	941	950	960	969	978	987	997	*006	*015	5	21 40
18'	468	67 025	034	043	052	062	071	080	089	099	108	6	22 41
10	469	117	127	136	145	154	164	173	182	191	201	7	23 42
20	470	210	219	228	237	247	256	265	274	284	293	8	24 43
30	471	302	311	321	330	339	348	357	367	376	385	9	25 44
40	472	394	403	413	422	431	440	449	459	468	477		26 45
50	473	486	495	504	514	523	532	541	550	560	569		27 46
19'	474	578	587	596	605	614	624	633	642	651	660	9	Tang 18
10	475	669	679	688	697	706	715	724	733	742	752	1	17' + 73
20	476	761	770	779	788	797	806	815	825	834	843	2	18 74
30	477	852	861	870	879	888	897	906	916	925	934	3	19 76
40	478	943	952	961	970	979	988	997	*006	*015	*024	4	20 78
50	479	68 034	043	052	061	070	079	088	097	106	115	5	21 80
20'	480	124	133	142	151	160	169	178	187	196	205	6	22 82
10	481	215	224	233	242	251	260	269	278	287	296	7	23 84
20	482	305	314	323	332	341	350	359	368	377	386	8	24 86
30	483	395	404	413	422	431	440	449	458	467	476	9	25 88
40	484	485	494	502	511	520	529	538	547	556	565		26 90
50	485	574	583	592	601	610	619	628	637	646	655		27 93
21'	486	664	673	681	690	699	708	717	726	735	744	1	
10	487	753	762	771	780	789	797	806	815	824	833	2	
20	488	842	851	860	869	878	886	895	904	913	922	3	
30	489	931	940	949	958	966	975	984	993	*002	*011	4	
40	490	69 020	028	037	046	055	064	073	082	090	099	5	
50	491	108	117	126	135	144	152	161	170	179	188	6	
22'	492	197	205	214	223	232	241	249	258	267	276	7	
10	493	285	294	302	311	320	329	338	346	355	364	8	
20	494	373	381	390	399	408	417	425	434	443	452	9	
30	495	461	469	478	487	496	504	513	522	531	539		
40	496	548	557	566	574	583	592	601	609	618	627		
50	497	636	644	653	662	671	679	688	697	705	714		
23'	498	723	732	740	749	758	767	775	784	793	801		
10	499	810	819	827	836	845	854	862	871	880	888		
20	500	897	906	914	923	932	940	949	958	966	975		
30	501	984	992	*001	*010	*018	*027	*036	*044	*053	*062		
40	502	70 070	079	088	096	105	114	122	131	140	148		
50	503	157	165	174	183	191	200	209	217	226	234		
24'	504	243	252	260	269	278	286	295	303	312	321		
10	505	329	338	346	355	364	372	381	389	398	406		
20	506	415	424	432	441	449	458	467	475	484	492		
30	507	501	509	518	526	535	544	552	561	569	578		
40	508	586	595	603	612	621	629	638	646	655	663		
50	509	672	680	689	697	706	714	723	731	740	749		
25'	510	757	766	774	783	791	800	808	817	825	834		
10	511	842	851	859	868	876	885	893	902	910	919		
20	512	927	935	944	952	961	969	978	986	995	*003		
30	513	71 012	020	029	037	046	054	063	071	079	088		
40	514	096	105	113	122	130	139	147	155	164	172		
50	515	181	189	198	206	214	223	231	240	248	257		
26'	516	265	273	282	290	299	307	315	324	332	341		
10	517	349	357	366	374	383	391	399	408	416	425		
20	518	433	441	450	458	466	475	483	492	500	508		
30	519	517	525	533	542	550	559	567	575	584	592		
40	520	600	609	617	625	634	642	650	659	667	675		
50	521	684	692	700	709	717	725	734	742	750	759		
"	N.	O	I	2	3	4	5	6	7	8	9		

S. 4,68 5529; T. 4,68 5668

V. 4,68 5575

18	N.	0	1	2	3	4	5	6	7	8	9	P. P.	Corr.	
27'	522	71	767	775	784	792	800	809	817	825	834	842	9	Sin 18
10	523		850	858	867	875	883	892	900	908	917	925	1	27' + 46
20	524		933	941	950	958	966	975	983	991	999	*008	2	28 48
30	525	72	016	024	032	041	049	057	066	074	082	090	3	29 49
40	526		099	107	115	123	132	140	148	156	165	173	4	30 50
50	527		181	189	198	206	214	222	230	239	247	255	5	31 51
28'	528		263	272	280	288	296	304	313	321	329	337	6	32 52
10	529		346	354	362	370	378	387	395	403	411	419	7	33 53
20	530		428	436	444	452	460	469	477	485	493	501	8	34 54
30	531		509	518	526	534	542	550	558	567	575	583	9	35 55
40	532		591	599	607	616	624	632	640	648	656	665	8	36 57
50	533		673	681	689	697	705	713	722	730	738	746	1	37 58
29'	534		754	762	770	779	787	795	803	811	819	827	2	Tang 18
10	535		835	843	852	860	868	876	884	892	900	908	3	27' + 93
20	536		916	925	933	941	949	957	965	973	981	989	4	28 95
30	537		997	*006	*014	*022	*030	*038	*046	*054	*062	*070	5	29 97
40	538	73	078	086	094	102	111	119	127	135	143	151	6	30 99
50	539		159	167	175	183	191	199	207	215	223	231	7	31 101
30'	540		239	247	255	263	272	280	288	296	304	312	8	32 104
10	541		320	328	336	344	352	360	368	376	384	392	9	33 106
20	542		400	408	416	424	432	440	448	456	464	472	7	34 108
30	543		480	488	496	504	512	520	528	536	544	552	1	35 110
40	544		560	568	576	584	592	600	608	616	624	632	2	36 113
50	545		640	648	656	664	672	679	687	695	703	711	3	37 115
31'	546		719	727	735	743	751	759	767	775	783	791	4	
10	547		799	807	815	823	830	838	846	854	862	870	5	
20	548		878	886	894	902	910	918	926	933	941	949	6	
30	549		957	965	973	981	989	997	*005	*013	*020	*028	7	
40	550	74	036	044	052	060	068	076	084	092	099	107	8	
50	551		115	123	131	139	147	155	162	170	178	186	9	
32'	552		194	202	210	218	225	233	241	249	257	265		
10	553		273	280	288	296	304	312	320	327	335	343		
20	554		351	359	367	374	382	390	398	406	414	421		
30	555		429	437	445	453	461	468	476	484	492	500		
40	556		507	515	523	531	539	547	554	562	570	578		
50	557		586	593	601	609	617	624	632	640	648	656		
33'	558		663	671	679	687	695	702	710	718	726	733		
10	559		741	749	757	764	772	780	788	796	803	811		
20	560		819	827	834	842	850	858	865	873	881	889		
30	561		896	904	912	920	927	935	943	950	958	966		
40	562		974	981	989	997	*005	*012	*020	*028	*035	*043		
50	563	75	051	059	066	074	082	089	097	105	113	120		
34'	564		128	136	143	151	159	166	174	182	189	197		
10	565		205	213	220	228	236	243	251	259	266	274		
20	566		282	289	297	305	312	320	328	335	343	351		
30	567		358	366	374	381	389	397	404	412	420	427		
40	568		435	442	450	458	465	473	481	488	496	504		
50	569		511	519	526	534	542	549	557	565	572	580		
35'	570		587	595	603	610	618	626	633	641	648	656		
10	571		664	671	679	686	694	702	709	717	724	732		
20	572		740	747	755	762	770	778	785	793	800	808		
30	573		815	823	831	838	846	853	861	868	876	884		
40	574		891	899	906	914	921	929	937	944	952	959		
50	575		967	974	982	989	997	*005	*012	*020	*027	*035		
36'	576	76	042	050	057	065	072	080	087	095	103	110		
10	577		118	125	133	140	148	155	163	170	178	185		
20	578		193	200	208	215	223	230	238	245	253	260		
30	579		268	275	283	290	298	305	313	320	328	335		
40	580		343	350	358	365	373	380	388	395	403	410		
50	581		418	425	433	440	448	455	462	470	477	485		
"	N.	0	1	2	3	4	5	6	7	8	9			

S. 4,68 5517; T. 4,68 5690

V. 4,68 5575

18	N.	0	1	2	3	4	5	6	7	8	9	P. P.	Corr.
37'	582	76 492	500	507	515	522	530	537	545	552	559	8	Sin 18
10	583	567	574	582	589	597	604	612	619	626	634	1	37' + 58
20	584	641	649	656	664	671	678	686	693	701	708	2	38 59
30	585	716	723	730	738	745	753	760	768	775	782	3	39 60
40	586	790	797	805	812	819	827	834	842	849	856	4	40 61
50	587	864	871	879	886	893	901	908	916	923	930	5	41 63
38'	588	938	945	953	960	967	975	982	989	997	*004	6	42 64
10	589	77 012	019	026	034	041	048	056	063	070	078	7	43 65
20	590	085	093	100	107	115	122	129	137	144	151	8	44 66
30	591	159	166	173	181	188	195	203	210	217	225	9	45 68
40	592	232	240	247	254	262	269	276	283	291	298		46 69
50	593	305	313	320	327	335	342	349	357	364	371		47 70
39'	594	379	386	393	401	408	415	422	430	437	444	7	Tang 18
10	595	452	459	466	474	481	488	495	503	510	517	1	37' + 115
20	596	525	532	539	546	554	561	568	576	583	590	2	38 118
30	597	597	605	612	619	627	634	641	648	656	663	3	39 120
40	598	670	677	685	692	699	706	714	721	728	735	4	40 122
50	599	743	750	757	764	772	779	786	793	801	808	5	41 125
40'	600	815	822	830	837	844	851	859	866	873	880	6	42 127
10	601	887	895	902	909	916	924	931	938	945	952		43 130
20	602	960	967	974	981	988	996	*003	*010	*017	*025		44 132
30	603	78 032	039	046	053	061	068	075	082	089	097	1	45 135
40	604	104	111	118	125	132	140	147	154	161	168	2	46 138
50	605	176	183	190	197	204	211	219	226	233	240	3	47 140
41'	606	247	254	262	269	276	283	290	297	305	312	4	
10	607	319	326	333	340	347	355	362	369	376	383	5	
20	608	390	398	405	412	419	426	433	440	447	455	6	
30	609	462	469	476	483	490	497	504	512	519	526	7	
40	610	533	540	547	554	561	569	576	583	590	597	8	
50	611	604	611	618	625	633	640	647	654	661	668	9	
42'	612	675	682	689	696	704	711	718	725	732	739		
10	613	746	753	760	767	774	781	789	796	803	810		
20	614	817	824	831	838	845	852	859	866	873	880		
30	615	888	895	902	909	916	923	930	937	944	951		
40	616	958	965	972	979	986	993	*000	*007	*014	*021		
50	617	79 029	036	043	050	057	064	071	078	085	092		
43'	618	099	106	113	120	127	134	141	148	155	162		
10	619	169	176	183	190	197	204	211	218	225	232		
20	620	239	246	253	260	267	274	281	288	295	302		
30	621	309	316	323	330	337	344	351	358	365	372		
40	622	379	386	393	400	407	414	421	428	435	442		
50	623	449	456	463	470	477	484	491	498	505	511		
44'	624	518	525	532	539	546	553	560	567	574	581		
10	625	588	595	602	609	616	623	630	637	644	650		
20	626	657	664	671	678	685	692	699	706	713	720		
30	627	727	734	741	748	754	761	768	775	782	789		
40	628	796	803	810	817	824	831	837	844	851	858		
50	629	865	872	879	886	893	900	906	913	920	927		
45'	630	934	941	948	955	962	969	975	982	989	996		
10	631	80 003	010	017	024	030	037	044	051	058	065		
20	632	072	079	085	092	099	106	113	120	127	134		
30	633	140	147	154	161	168	175	182	188	195	202		
40	634	209	216	223	229	236	243	250	257	264	271		
50	635	277	284	291	298	305	312	318	325	332	339		
46'	636	346	353	359	366	373	380	387	393	400	407		
10	637	414	421	428	434	441	448	455	462	468	475		
20	638	482	489	496	502	509	516	523	530	536	543		
30	639	550	557	564	570	577	584	591	598	604	611		
40	640	618	625	632	638	645	652	659	665	672	679		
50	641	686	693	699	706	713	720	726	733	740	747		
"	N.	0	1	2	3	4	5	6	7	8	9		

S. 4,68 5505; T. 4,68 5715

V. 4,68 5575

18	N.	O	I	2	3	4	5	6	7	8	9	P. P.	Corr.
47'	642	80 754	760	767	774	781	787	794	801	808	814	7	Sin 18
10	643	821	828	835	841	848	855	862	868	875	882	1	47' + 70
20	644	889	895	902	909	916	92	929	936	943	949	2	48' + 72
30	645	956	963	969	976	983	990	996	*003	*010	*017	3	49' + 73
40	646	81 023	030	037	043	050	057	064	070	077	084	4	50' + 74
50	647	090	097	104	111	117	124	131	137	144	151	5	51' + 76
48'	648	158	164	171	178	184	191	198	204	211	218	6	52' + 77
10	649	224	231	238	245	251	258	265	271	278	285	7	53' + 78
20	650	291	298	305	311	318	325	331	338	345	351	8	54' + 80
30	651	358	365	371	378	385	391	398	405	411	418	9	55' + 81
40	652	425	431	438	445	451	458	465	471	478	485		56' + 83
50	653	491	498	505	511	518	525	531	538	544	551	6	57' + 84
49'	654	558	564	571	578	584	591	598	604	611	617	1	Tang 18
10	655	624	631	637	644	651	657	664	671	677	684	2	47' + 140
20	656	690	697	704	710	717	723	730	737	743	750	3	48' + 143
30	657	757	763	770	776	783	790	796	803	809	816	4	49' + 145
40	658	823	829	836	842	849	856	862	869	875	882	5	50' + 148
50	659	889	895	902	908	915	921	928	935	941	948	6	51' + 151
50'	660	954	961	968	974	981	987	994	*000	*007	*014	7	52' + 154
10	661	82 020	027	033	040	046	053	060	066	073	079	8	53' + 156
20	662	086	092	099	105	112	119	125	132	138	145	9	54' + 159
30	663	151	158	164	171	178	184	191	197	204	210		55' + 162
40	664	217	223	230	236	243	249	256	263	269	276		56' + 165
50	665	282	289	295	302	308	315	321	328	334	341		57' + 168
51'	666	347	354	360	367	373	380	387	393	400	406		
10	667	413	419	426	432	439	445	452	458	465	471		
20	668	478	484	491	497	504	510	517	523	530	536		
30	669	543	549	556	562	569	575	582	588	595	601		
40	670	607	614	620	627	633	640	646	653	659	666		
50	671	672	679	685	692	698	705	711	718	724	730		
52'	672	737	743	750	756	763	769	776	782	789	795		
10	673	802	808	814	821	827	834	840	847	853	860		
20	674	866	872	879	885	892	898	905	911	918	924		
30	675	930	937	943	950	956	963	969	975	982	988		
40	676	995	*001	*008	*014	*020	*027	*033	*040	*046	*052		
50	677	83 059	065	072	078	085	091	097	104	110	117		
53'	678	123	129	136	142	149	155	161	168	174	181		
10	679	187	193	200	206	213	219	225	232	238	245		
20	680	251	257	264	270	276	283	289	296	302	308		
30	681	315	321	327	334	340	347	353	359	366	372		
40	682	378	385	391	398	404	410	417	423	429	436		
50	683	442	448	455	461	467	474	480	487	493	499		
54'	684	506	512	518	525	531	537	544	550	556	563		
10	685	569	575	582	588	594	601	607	613	620	626		
20	686	632	639	645	651	658	664	670	677	683	689		
30	687	696	702	708	715	721	727	734	740	746	753		
40	688	759	765	771	778	784	790	797	803	809	816		
50	689	822	828	835	841	847	853	860	866	872	879		
55'	690	885	891	897	904	910	916	923	929	935	942		
10	691	948	954	960	967	973	979	985	992	998	*004		
20	692	84 011	017	023	029	036	042	048	055	061	067		
30	693	073	080	086	092	098	105	111	117	123	130		
40	694	136	142	148	155	161	167	173	180	186	192		
50	695	198	205	211	217	223	230	236	242	248	255		
56'	696	261	267	273	280	286	292	298	305	311	317		
10	697	323	330	336	342	348	354	361	367	373	379		
20	698	386	392	398	404	410	417	423	429	435	442		
30	699	448	454	460	466	473	479	485	491	497	504		
40	700	510	516	522	528	535	541	547	553	559	566		
50	701	572	578	584	590	597	603	609	615	621	628		
"	N.	O	I	2	3	4	5	6	7	8	9		

S. 4,68 5491; T. 4,68 5743

V. 4,68 5575

18	N.	O	I	2	3	4	5	6	7	8	9	P. P.	Corr.
57'	702	84 634	640	646	652	658	665	671	677	683	689	7	Sin 18
10	703	696	702	708	714	720	726	733	739	745	751	1	57' + 84
20	704	757	763	770	776	782	788	794	800	807	813	2	58' + 85
30	705	819	825	831	837	844	850	856	862	868	874	3	59' + 87
40	706	880	887	893	899	905	911	917	924	930	936	4	28' 0' 88
50	707	942	948	954	960	967	973	979	985	991	997	5	1' 90
58'	708	85 003	009	016	022	028	034	040	046	052	058	6	2' 91
10	709	065	071	077	083	089	095	101	107	114	120	7	3' 93
20	710	126	132	138	144	150	156	163	169	175	181	8	4' 94
30	711	187	193	199	205	211	217	224	230	236	242	9	5' 96
40	712	248	254	260	266	272	278	285	291	297	303	6	6' 97
50	713	309	315	321	327	333	339	345	352	358	364	1	7' 99
59'	714	370	376	382	388	394	400	406	412	418	425	2	Tang 18
10	715	431	437	443	449	455	461	467	473	479	485	3	57' + 168
20	716	491	497	503	509	516	522	528	534	540	546	4	58' + 170
30	717	552	558	564	570	576	582	588	594	600	606	5	59' + 173
40	718	612	618	625	631	637	643	649	655	661	667	6	28' 0' 176
50	719	673	679	685	691	697	703	709	715	721	727	7	1' 179
28	720	733	739	745	751	757	763	769	775	781	788	8	2' 182
10	721	794	800	806	812	818	824	830	836	842	848	9	3' 185
20	722	854	860	866	872	878	884	890	896	902	908	5	4' 188
30	723	914	920	926	932	938	944	950	956	962	968	1	5' 191
40	724	974	980	986	992	998	*004	*010	*016	*022	*028	2	6' 194
50	725	86 034	040	046	052	058	064	070	076	082	088	3	7' 198
1'	726	094	100	106	112	118	124	130	136	141	147	4	
10	727	153	159	165	171	177	183	189	195	201	207	5	
20	728	213	219	225	231	237	243	249	255	261	267	6	
30	729	273	279	285	291	297	303	308	314	320	326	7	
40	730	332	338	344	350	356	362	368	374	380	386	8	
50	731	392	398	404	410	415	421	427	433	439	445	9	
2'	732	451	457	463	469	475	481	487	493	499	504		
10	733	510	516	522	528	534	540	546	552	558	564		
20	734	570	576	581	587	593	599	605	611	617	623		
30	735	629	635	641	646	652	658	664	670	676	682		
40	736	688	694	700	705	711	717	723	729	735	741		
50	737	747	753	759	764	770	776	782	788	794	800		
3'	738	806	812	817	823	829	835	841	847	853	859		
10	739	864	870	876	882	888	894	900	906	911	917		
20	740	923	929	935	941	947	953	958	964	970	976		
30	741	982	988	994	999	*005	*011	*017	*023	*029	*035		
40	742	87 040	046	052	058	064	070	075	081	087	093		
50	743	099	105	111	116	122	128	134	140	146	151		
4'	744	157	163	169	175	181	186	192	198	204	210		
10	745	216	221	227	233	239	245	251	256	262	268		
20	746	274	280	286	291	297	303	309	315	320	326		
30	747	332	338	344	349	355	361	367	373	379	384		
40	748	390	396	402	408	413	419	425	431	437	442		
50	749	448	454	460	466	471	477	483	489	495	500		
5'	750	506	512	518	523	529	535	541	547	552	558		
10	751	564	570	576	581	587	593	599	604	610	616		
20	752	622	628	633	639	645	651	656	662	668	674		
30	753	679	685	691	697	703	708	714	720	726	731		
40	754	737	743	749	754	760	766	772	777	783	789		
50	755	795	800	806	812	818	823	829	835	841	846		
6'	756	852	858	864	869	875	881	887	892	898	904		
10	757	910	915	921	927	933	938	944	950	955	961		
20	758	967	973	978	984	990	996	*001	*007	*013	*018		
30	759	88 024	030	036	041	047	053	058	064	070	076		
40	760	081	087	093	098	104	110	116	121	127	133		
50	761	138	144	150	156	161	167	173	178	184	190		
"	N.	O	I	2	3	4	5	6	7	8	9		

S. 4,68 5476; T. 4,68 5773

V. 4,68 5575

2 ^s	N.	0	1	2	3	4	5	6	7	8	9	P. P.	Corr.	
7'	762	88	195	201	207	213	218	224	230	235	241	247	6	Sin 2 ^s
10	763		252	258	264	270	275	281	287	292	298	304	1	7' + 99
20	764		309	315	321	326	332	338	343	349	355	360	2	8 100
30	765		366	372	377	383	389	395	400	406	412	417	3	9 102
40	766		423	429	434	440	446	451	457	463	468	474	4	10 104
50	767		480	485	491	497	502	508	513	519	525	530	5	11 105
8'	768		536	542	547	553	559	564	570	576	581	587	6	12 107
10	769		593	598	604	610	615	621	627	632	638	643	7	13 108
20	770		649	655	660	666	672	677	683	689	694	700	8	14 110
30	771		705	711	717	722	728	734	739	745	750	756	9	15 112
40	772		762	767	773	779	784	790	795	801	807	812		16 113
50	773		818	824	829	835	840	846	852	857	863	868		17 115
9'	774		874	880	885	891	897	902	908	913	919	925	1	Tang 2 ^s
10	775		930	936	941	947	953	958	964	969	975	981	2	7' + 198
20	776		986	992	997	*003	*009	*014	*020	*025	*031	*037	3	8 201
30	777	89	042	048	053	059	064	070	076	081	087	092	4	9 204
40	778		098	104	109	115	120	126	131	137	143	148	5	10 207
50	779		154	159	165	170	176	182	187	193	198	204	6	11 210
10'	780		209	215	221	226	232	237	243	248	254	260	7	12 213
10	781		265	271	276	282	287	293	298	304	310	315	8	13 217
20	782		321	326	332	337	343	348	354	360	365	371	9	14 220
30	783		376	382	387	393	398	404	409	415	421	426		15 223
40	784		432	437	443	448	454	459	465	470	476	481		16 227
50	785		487	492	498	504	509	515	520	526	531	537		17 230
11'	786		542	548	553	559	564	570	575	581	586	592		
10	787		597	603	609	614	620	625	631	636	642	647		
20	788		653	658	664	669	675	680	686	691	697	702		
30	789		708	713	719	724	730	735	741	746	752	757		
40	790		763	768	774	779	785	790	796	801	807	812		
50	791		818	823	829	834	840	845	851	856	862	867		
12'	792		873	878	883	889	894	900	905	911	916	922		
10	793		927	933	938	944	949	955	960	966	971	977		
20	794		982	988	993	998	*004	*009	*015	*020	*026	*031		
30	795	90	037	042	048	053	059	064	069	075	080	086		
40	796		091	097	102	108	113	119	124	129	135	140		
50	797		146	151	157	162	168	173	179	184	189	195		
13'	798		200	206	211	217	222	227	233	238	244	249		
10	799		255	260	266	271	276	282	287	293	298	304		
20	800		309	314	320	325	331	336	342	347	352	358		
30	801		363	369	374	380	385	390	396	401	407	412		
40	802		417	423	428	434	439	445	450	455	461	466		
50	803		472	477	482	488	493	499	504	509	515	520		
14'	804		526	531	536	542	547	553	558	563	569	574		
10	805		580	585	590	596	601	607	612	617	623	628		
20	806		634	639	644	650	655	660	666	671	677	682		
30	807		687	693	698	703	709	714	720	725	730	736		
40	808		741	747	752	757	763	768	773	779	784	789		
50	809		795	800	806	811	816	822	827	832	838	843		
15'	810		849	854	859	865	870	875	881	886	891	897		
10	811		902	907	913	918	924	929	934	940	945	950		
20	812		956	961	966	972	977	982	988	993	998	*004		
30	813	91	009	014	020	025	030	036	041	046	052	057		
40	814		062	068	073	078	084	089	094	100	105	110		
50	815		116	121	126	132	137	142	148	153	158	164		
16'	816		169	174	180	185	190	196	201	206	212	217		
10	817		222	228	233	238	243	249	254	259	265	270		
20	818		275	281	286	291	297	302	307	312	318	323		
30	819		328	334	339	344	350	355	360	365	371	376		
40	820		381	387	392	397	403	408	413	418	424	429		
50	821		434	440	445	450	455	461	466	471	477	482		
"	N.	0	1	2	3	4	5	6	7	8	9			

S. 4,68 5460; T. 4,68 5805

V. 4,68 5575

25	N.	O	I	2	3	4	5	6	7	8	9	P. P.	Corr.
17'	822	91 487	492	498	503	508	514	519	524	529	535	6	Sin 25
10	823	540	545	551	556	561	566	572	577	582	587	1	17' + 115
20	824	593	598	603	609	614	619	624	630	635	640	2	18 117
30	825	645	651	656	661	666	672	677	682	687	693	3	19 118
40	826	698	703	709	714	719	724	730	735	740	745	4	20 120
50	827	751	756	761	766	772	777	782	787	793	798	5	21 122
18'	828	803	808	814	819	824	829	834	840	845	850	6	22 124
10	829	855	861	866	871	876	882	887	892	897	903	7	23 125
20	830	908	913	918	924	929	934	939	944	950	955	8	24 127
30	831	960	965	971	976	981	986	991	997	*002	*007	9	25 129
40	832	92 012	018	023	028	033	038	044	049	054	059	5	26 131
50	833	065	070	075	080	085	091	096	101	106	111	1	27 132
19'	834	117	122	127	132	137	143	148	153	158	163	2	Tang 25
10	835	169	174	179	184	189	195	200	205	210	215	3	17' + 230
20	836	221	226	231	236	241	247	252	257	262	267	4	18 233
30	837	273	278	283	288	293	298	304	309	314	319	5	19 237
40	838	324	330	335	340	345	350	355	361	366	371	6	20 240
50	839	376	381	387	392	397	402	407	412	418	423	7	21 243
20'	840	428	433	438	443	449	454	459	464	469	474	8	22 247
10	841	480	485	490	495	500	505	511	516	521	526	9	23 250
20	842	531	536	542	547	552	557	562	567	572	578	4	24 254
30	843	583	588	593	598	603	609	614	619	624	629	1	25 258
40	844	634	639	645	650	655	660	665	670	675	681	2	26 261
50	845	686	691	696	701	706	711	716	722	727	732	3	27 265
21'	846	737	742	747	752	758	763	768	773	778	783	4	
10	847	788	793	799	804	809	814	819	824	829	834	5	
20	848	840	845	850	855	860	865	870	875	881	886	6	
30	849	891	896	901	906	911	916	921	927	932	937	7	
40	850	942	947	952	957	962	967	973	978	983	988	8	
50	851	993	998	*003	*008	*013	*018	*024	*029	*034	*039	9	
22'	852	93 044	049	054	059	064	069	075	080	085	090		
10	853	095	100	105	110	115	120	125	131	136	141		
20	854	146	151	156	161	166	171	176	181	186	192		
30	855	197	202	207	212	217	222	227	232	237	242		
40	856	247	252	258	263	268	273	278	283	288	293		
50	857	298	303	308	313	318	323	328	334	339	344		
23'	858	349	354	359	364	369	374	379	384	389	394		
10	859	399	404	409	414	420	425	430	435	440	445		
20	860	450	455	460	465	470	475	480	485	490	495		
30	861	500	505	510	515	520	526	531	536	541	546		
40	862	551	556	561	566	571	576	581	586	591	596		
50	863	601	606	611	616	621	626	631	636	641	646		
24'	864	651	656	661	666	671	676	682	687	692	697		
10	865	702	707	712	717	722	727	732	737	742	747		
20	866	752	757	762	767	772	777	782	787	792	797		
30	867	802	807	812	817	822	827	832	837	842	847		
40	868	852	857	862	867	872	877	882	887	892	897		
50	869	902	907	912	917	922	927	932	937	942	947		
25'	870	952	957	962	967	972	977	982	987	992	997		
10	871	94 002	007	012	017	022	027	032	037	042	047		
20	872	052	057	062	067	072	077	082	086	091	096		
30	873	101	106	111	116	121	126	131	136	141	146		
40	874	151	156	161	166	171	176	181	186	191	196		
50	875	201	206	211	216	221	226	231	236	240	245		
26'	876	250	255	260	265	270	275	280	285	290	295		
10	877	300	305	310	315	320	325	330	335	340	345		
20	878	349	354	359	364	369	374	379	384	389	394		
30	879	399	404	409	414	419	424	429	433	438	443		
40	880	448	453	458	463	468	473	478	483	488	493		
50	881	498	503	507	512	517	522	527	532	537	542		
"	N.	O	I	2	3	4	5	6	7	8	9		

S. 4,68 5443; T. 4,68 5840

V. 4,68 5575

28	N.	0	1	2	3	4	5	6	7	8	9	P. P.	Corr.
27'	882	94 547	552	557	562	567	571	576	581	586	591	5	Sin 28
10	883	596	601	606	611	616	621	626	630	635	640	1	27' + 132
20	884	645	650	655	660	665	670	675	680	685	689	2	28 134
30	885	694	699	704	709	714	719	724	729	734	738	3	29 136
40	886	743	748	753	758	763	768	773	778	783	787	4	30 138
50	887	792	797	802	807	812	817	822	827	832	836	5	31 140
28'	888	841	846	851	856	861	866	871	876	880	885	6	32 142
10	889	890	895	900	905	910	915	919	924	929	934	7	33 144
20	890	939	944	949	954	959	963	968	973	978	983	8	34 145
30	891	988	993	998	*002	*007	*012	*017	*022	*027	*032	9	35 147
40	892	95 036	041	046	051	056	061	066	071	075	080	4	36 149
50	893	085	090	095	100	105	109	114	119	124	129	1	37 151
29'	894	134	139	143	148	153	158	163	168	173	177	2	Tang 28
10	895	182	187	192	197	202	207	211	216	221	226	3	27' + 265
20	896	231	236	240	245	250	255	260	265	270	274	4	28 268
30	897	279	284	289	294	299	303	308	313	318	323	5	29 272
40	898	328	332	337	342	347	352	357	361	366	371	6	30 276
50	899	376	381	386	390	395	400	405	410	415	419	7	31 279
30'	900	424	429	434	439	444	448	453	458	463	468	8	32 283
10	901	472	477	482	487	492	497	501	506	511	516	9	33 287
20	902	521	525	530	535	540	545	550	554	559	564		34 291
30	903	569	574	578	583	588	593	598	602	607	612		35 294
40	904	617	622	626	631	636	641	646	650	655	660		36 298
50	905	665	670	674	679	684	689	694	698	703	708		37 302
31'	906	713	718	722	727	732	737	742	746	751	756		
10	907	761	766	770	775	780	785	789	794	799	804		
20	908	809	813	818	823	828	832	837	842	847	852		
30	909	856	861	866	871	875	880	885	890	895	899		
40	910	904	909	914	918	923	928	933	938	942	947		
50	911	952	957	961	966	971	976	980	985	990	995		
32'	912	999	*004	*009	*014	*019	*023	*028	*033	*038	*042		
10	913	96 047	052	057	061	066	071	076	080	085	090		
20	914	095	099	104	109	114	118	123	128	133	137		
30	915	142	147	152	156	161	166	171	175	180	185		
40	916	190	194	199	204	209	213	218	223	227	232		
50	917	237	242	246	251	256	261	265	270	275	280		
33'	918	284	289	294	298	303	308	313	317	322	327		
10	919	332	336	341	346	350	355	360	365	369	374		
20	920	379	384	388	393	398	402	407	412	417	421		
30	921	426	431	435	440	445	450	454	459	464	468		
40	922	473	478	483	487	492	497	501	506	511	515		
50	923	520	525	530	534	539	544	548	553	558	562		
34'	924	567	572	577	581	586	591	595	600	605	609		
10	925	614	619	624	628	633	638	642	647	652	656		
20	926	661	666	670	675	680	685	689	694	699	703		
30	927	708	713	717	722	727	731	736	741	745	750		
40	928	755	759	764	769	774	778	783	788	792	797		
50	929	802	806	811	816	820	825	830	834	839	844		
35'	930	848	853	858	862	867	872	876	881	886	890		
10	931	895	900	904	909	914	918	923	928	932	937		
20	932	942	946	951	956	960	965	970	974	979	984		
30	933	988	993	997	*002	*007	*011	*016	*021	*025	*030		
40	934	97 035	039	044	049	053	058	063	067	072	077		
50	935	081	086	090	095	100	104	109	114	118	123		
36'	936	128	132	137	142	146	151	155	160	165	169		
10	937	174	179	183	188	192	197	202	206	211	216		
20	938	220	225	230	234	239	243	248	253	257	262		
30	939	267	271	276	280	285	290	294	299	304	308		
40	940	313	317	322	327	331	336	340	345	350	354		
50	941	359	364	368	373	377	382	387	391	396	400		
"	N.	0	1	2	3	4	5	6	7	8	9		

S. 4,68 5424; T. 4,68 5877

V. 4,68 5575

28	N.	O	I	2	3	4	5	6	7	8	9	P. P.	Corr.
37'	942	97 405	410	414	419	424	428	433	437	442	447	5	Sin 28
10	943	451	456	460	465	470	474	479	483	488	493	1	37' + 151
20	944	497	502	506	511	516	520	525	529	534	539	2	38 153
30	945	543	548	552	557	562	566	571	575	580	585	3	39 155
40	946	589	594	598	603	607	612	617	621	626	630	4	40 157
50	947	635	640	644	649	653	658	663	667	672	676	5	41 159
38'	948	681	685	690	695	699	704	708	713	717	722	6	42 161
10	949	727	731	736	740	745	749	754	759	763	768	7	43 163
20	950	772	777	782	786	791	795	800	804	809	813	8	44 165
30	951	818	823	827	832	836	841	845	850	855	859	9	45 167
40	952	864	868	873	877	882	886	891	896	900	905		46 169
50	953	909	914	918	923	928	932	937	941	946	950	4	47 171
39'	954	955	959	964	968	973	978	982	987	991	996	1	Tang 28
10	955	98 000	005	009	014	019	023	028	032	037	041	2	37' + 302
20	956	046	050	055	059	064	068	073	078	082	087	3	38 306
30	957	091	096	100	105	109	114	118	123	127	132	4	39 310
40	958	137	141	146	150	155	159	164	168	173	177	5	40 314
50	959	182	186	191	195	200	204	209	214	218	223	6	41 318
40'	960	227	232	236	241	245	250	254	259	263	268	7	42 322
10	961	272	277	281	286	290	295	299	304	308	313	8	43 325
20	962	318	322	327	331	336	340	345	349	354	358	9	44 330
30	963	363	367	372	376	381	385	390	394	399	403		45 334
40	964	408	412	417	421	426	430	435	439	444	448	1	46 338
50	965	453	457	462	466	471	475	480	484	489	493	2	47 342
41'	966	498	502	507	511	516	520	525	529	534	538	3	
10	967	543	547	552	556	561	565	570	574	579	583	4	
20	968	588	592	597	601	605	610	614	619	623	628	5	
30	969	632	637	641	646	650	655	659	664	668	673	6	
40	970	677	682	686	691	695	700	704	709	713	717	7	
50	971	722	726	731	735	740	744	749	753	758	762	8	
42'	972	767	771	776	780	784	789	793	798	802	807	9	
10	973	811	816	820	825	829	834	838	843	847	851		43
20	974	856	860	865	869	874	878	883	887	892	896	1	4,3
30	975	900	905	909	914	918	923	927	932	936	941	2	8,6
40	976	945	949	954	958	963	967	972	976	981	985	3	12,9
50	977	989	994	998	003	007	012	016	021	025	029	4	17,2
43'	978	99 034	038	043	047	052	056	061	065	069	074	5	21,5
10	979	078	083	087	092	096	100	105	109	114	118	6	25,8
20	980	123	127	131	136	140	145	149	154	158	162	7	30,1
30	981	167	171	176	180	185	189	193	198	202	207	8	34,4
40	982	211	216	220	224	229	233	238	242	247	251	9	38,7
50	983	255	260	264	269	273	277	282	286	291	295		
44'	984	300	304	308	313	317	322	326	330	335	339		
10	985	344	348	352	357	361	366	370	374	379	383		
20	986	388	392	396	401	405	410	414	419	423	427		
30	987	432	436	441	445	449	454	458	463	467	471		
40	988	476	480	484	489	493	498	502	506	511	515		
50	989	520	524	528	533	537	542	546	550	555	559		
45'	990	564	568	572	577	581	585	590	594	599	603		
10	991	607	612	616	621	625	629	634	638	642	647		
20	992	651	656	660	664	669	673	677	682	686	691		
30	993	695	699	704	708	712	717	721	726	730	734		
40	994	739	743	747	752	756	760	765	769	774	778		
50	995	782	787	791	795	800	804	808	813	817	822		
46'	996	826	830	835	839	843	848	852	856	861	865		
10	997	870	874	878	883	887	891	896	900	904	909		
20	998	913	917	922	926	930	935	939	944	948	952		
30	999	957	961	965	970	974	978	983	987	991	996		
40	1000	000	000	043	087	130	174	217	260	304	347		
50	1001	434	477	521	564	608	651	694	738	781	824		
"	N.	O	I	2	3	4	5	6	7	8	9		

S. 4,68 5404; T. 4,68 5917

V. 4,68 5575

28	N.	O	I	2	3	4	5	6	7	8	9	P. P.	Corr.
47'	1002	000	868	911	954	998	*041	*084	*128	*171	*214	*258	Sin 28
10	1003	001	301	344	388	431	474	517	561	604	647	690	47' + 171
20	1004		734	777	820	863	907	950	993	*036	*080	*123	48' + 173
30	1005	002	166	209	252	296	339	382	425	468	512	555	49' + 175
40	1006		598	641	684	727	771	814	857	900	943	986	50' + 177
50	1007	003	029	073	116	159	202	245	288	331	374	417	51' + 179
48'	1008		461	504	547	590	633	676	719	762	805	848	52' + 181
10	1009		891	934	977	*020	*063	*106	*149	*192	*235	*278	53' + 183
20	1010	004	321	364	407	450	493	536	579	*622	665	708	54' + 186
30	1011		751	794	837	880	923	966	*009	*052	*095	*138	55' + 188
40	1012	005	181	223	266	309	352	395	438	481	524	567	56' + 190
50	1013		609	652	695	738	781	824	867	909	952	995	57' + 192
49'	1014	006	038	081	124	166	209	252	295	338	380	423	Tang 28
10	1015		466	509	552	594	637	680	723	765	808	851	47' + 342
20	1016		894	936	979	*022	*065	*107	*150	*193	*236	*278	48' + 346
30	1017	007	321	364	406	449	492	534	577	620	662	705	49' + 350
40	1018		748	790	833	876	918	961	*004	*046	*089	*132	50' + 354
50	1019	008	174	217	259	302	345	387	430	472	515	558	51' + 358
50'	1020		600	643	685	728	770	813	856	898	941	983	52' + 362
10	1021	009	026	068	111	153	196	238	281	323	366	408	53' + 367
20	1022		451	493	536	578	621	663	706	748	791	833	54' + 371
30	1023		876	918	961	*003	*045	*088	*130	*173	*215	*258	55' + 375
40	1024	010	300	342	385	427	470	512	554	597	639	681	56' + 380
50	1025		724	766	809	851	893	936	978	*020	*063	*105	57' + 384
51'	1026	011	147	190	232	274	317	359	401	444	486	528	
10	1027		570	613	655	697	740	782	824	866	909	951	
20	1028		993	*035	*078	*120	*162	*204	*247	*289	*331	*373	
30	1029	012	415	458	500	542	584	626	669	711	753	795	
40	1030		837	879	922	964	*006	*048	*090	*132	*174	*217	
50	1031	013	259	301	343	385	427	469	511	553	596	638	
52'	1032		680	722	764	806	848	890	932	974	*016	*058	
10	1033	014	100	142	184	226	268	310	353	395	437	479	
20	1034		521	563	605	647	689	730	772	814	856	898	
30	1035		940	982	*024	*066	*108	*150	*192	*234	*276	*318	
40	1036	015	360	402	444	485	527	569	611	653	695	737	
50	1037		779	821	863	904	946	988	*030	*072	*114	*156	
53'	1038	016	197	239	281	323	365	407	448	490	532	574	
10	1039		616	657	699	741	783	824	866	908	950	992	
20	1040	017	033	075	117	159	200	242	284	326	367	409	
30	1041		451	492	534	576	618	659	701	743	784	826	
40	1042		868	909	951	993	*034	*076	*118	*159	*201	*243	
50	1043	018	284	326	368	409	451	492	534	576	617	659	
54'	1044		700	742	784	825	867	908	950	992	*033	*075	
10	1045	019	116	158	199	241	282	324	366	407	449	490	
20	1046		532	573	615	656	698	739	781	822	864	905	
30	1047		947	988	*030	*071	*113	*154	*195	*237	*278	*320	
40	1048	020	361	403	444	486	527	568	610	651	693	734	
50	1049		775	817	858	900	941	982	*024	*065	*107	*148	
55'	1050	021	189	231	272	313	355	396	437	479	520	561	
10	1051		603	644	685	727	768	809	851	892	933	974	
20	1052	022	016	057	098	140	181	222	263	305	346	387	
30	1053		428	470	511	552	593	635	676	717	758	799	
40	1054		841	882	923	964	*005	*047	*088	*129	*170	*211	
50	1055	023	252	294	335	376	417	458	499	541	582	623	
56'	1056		664	705	746	787	828	870	911	952	993	*034	
10	1057	024	075	116	157	198	239	280	321	363	404	445	
20	1058		486	527	568	609	650	691	732	773	814	855	
30	1059		896	937	978	*019	*060	*101	*142	*183	*224	*265	
40	1060	025	306	347	388	429	470	511	552	593	634	674	
50	1061		715	756	797	838	879	920	961	*002	*043	*084	
"	N.	O	I	2	3	4	5	6	7	8	9		

S. 4,68 5383; T. 4,68 5059

V. 1,68 5575

2 ⁸	N	0	1	2	3	4	5	6	7	8	9	P. P.	Corr.	
57'	1062	026	125	165	206	247	288	329	370	411	452	492	41	Sin 2 ⁸
10	1063		533	574	615	656	697	737	778	819	860	901	1	57' + 192
20	1064		942	982	*023	*064	*105	*146	*186	*227	*268	*309	2	58' + 194
30	1065	027	350	390	431	472	513	553	594	635	676	716	3	59' + 196
40	1066		757	798	839	879	920	961	*002	*042	*083	*124	4	60' + 199
50	1067	028	164	205	246	287	327	368	409	449	490	531	5	
58'	1068		571	612	653	693	734	775	815	856	896	937	6	Tang 2 ⁸
10	1069		978	*018	*059	*100	*140	*181	*221	*262	*303	*343	7	57' + 384
20	1070	029	384	424	465	506	546	587	627	668	708	749	8	58' + 388
30	1071		789	830	871	911	952	992	*033	*073	*114	*154	9	59' + 393
40	1072	030	195	235	276	316	357	397	438	478	519	559	40	60' + 397
50	1073		600	640	681	721	762	802	843	883	923	964	1	
59'	1074	031	004	045	085	126	166	206	247	287	328	368	2	
10	1075		408	449	489	530	570	610	651	691	732	772	3	
20	1076		812	853	893	933	974	*014	*054	*095	*135	*175	4	
30	1077	032	216	256	296	337	377	417	458	498	538	578	5	
40	1078		619	659	699	740	780	820	860	901	941	981	6	
50	1079	033	021	062	102	142	182	223	263	303	343	384	7	
"	N.	0	1	2	3	4	5	6	7	8	9	9	8	
													9	

Tafel einiger oft vorkommender Logarithmen.

Log. von 360° oder 1296000"	6,11261
Log. von 24 ^h oder 86400"	4,93651
Log. des Bogens, der dem Halbmesser gleich ist	5,31443
Log. der Zahl π oder 3,1415927	0,49715
Log. des Inhalts eines Kreises, dessen Durchmesser 1 ist	9,89509
Log. des Inhalts einer Kugel, deren Durchmesser 1 ist	9,71900
Log. des mittl. Halbmessers der Erde von 3268159 Toisen	6,51430
Log. des mittl. Grades der Erde von 57040 Toisen	4,75618
Log. des trop. Jahrs von 365 ^t 5 ^h 48' 54"	2,56258
Log. des sid. Jahrs von 365 ^t 6 ^h 9' 15"	2,56260
Log. des täglichen Vorrückens der Nachtgleichen für das jährliche von 50"1	9,13726

Grundzahl der natürlichen Logarithmen

$$h = 2,718\ 281\ 828\ 459\ 045 \dots$$

Vielfache des reciproken Modulus der Briggischen Logarithmen.					Vielfache des Modulus der Briggischen Logarithmen.				
1	2,302	585	092	.. = log. nat. 10	10,434	294	481	.. = log. Brigg. h	
2	4,605	170	185	.. = log. nat. 10 ²	20,868	588	963	.. = log. Brigg. h ²	
3	6,907	755	278	.. = log. nat. 10 ³	31,302	883	445	.. = log. Brigg. h ³	
4	9,210	340	371	.. = log. nat. 10 ⁴	41,737	177	927	.. = log. Brigg. h ⁴	
5	11,512	925	464	.. = log. nat. 10 ⁵	52,171	472	409	.. = log. Brigg. h ⁵	
6	13,815	510	557	.. = log. nat. 10 ⁶	62,605	766	891	.. = log. Brigg. h ⁶	
7	16,118	095	650	.. = log. nat. 10 ⁷	73,040	061	373	.. = log. Brigg. h ⁷	
8	18,420	680	743	.. = log. nat. 10 ⁸	83,474	355	855	.. = log. Brigg. h ⁸	
9	20,723	265	836	.. = log. nat. 10 ⁹	93,908	650	337	.. = log. Brigg. h ⁹	

II.

B r i g g i s c h e

L o g a r i t h m e n

der

S i n u s u n d T a n g e n t e n

von Minute zu Minute

für alle Grade des Quadranten.

	Sin	d.	Tang	d.c.	Cotg	Cos			Sin	d.	Tang	d.c.	Cotg	Cos	
0						0.00000	60	10	7.46373	717	7.46373	718	2.53627	0.00000	50
10	5.68557	30103	5.68557	30103	4.31443	0.00000	50	10	7.47090	717	7.47091	718	2.52909	0.00000	50
20	5.98660	17610	5.98660	17610	4.01340	0.00000	40	20	7.47797	707	7.47797	706	2.52203	0.00000	40
30	6.16270	12493	6.16270	12493	3.83730	0.00000	30	30	7.48491	694	7.48492	695	2.51508	0.00000	30
40	6.28763	9691	6.28763	9691	3.71237	0.00000	20	40	7.49175	684	7.49176	684	2.50821	0.00000	20
50	6.38454	7919	6.38454	7919	3.61546	0.00000	10	50	7.49849	674	7.49849	673	2.50151	0.00000	10
1	6.46373	6694	6.46373	6694	3.53627	0.00000	59	11	7.50512	663	7.50512	663	2.49488	0.00000	49
10	6.53067	5799	6.53067	5799	3.46933	0.00000	50	10	7.51165	653	7.51165	644	2.48835	0.00000	50
20	6.58866	5116	6.58866	5116	3.41134	0.00000	40	20	7.51808	643	7.51809	634	2.48191	0.00000	40
30	6.63982	4575	6.63982	4575	3.36018	0.00000	30	30	7.52442	634	7.52443	624	2.47557	0.00000	30
40	6.68557	4140	6.68557	4140	3.31443	0.00000	20	40	7.53067	625	7.53067	616	2.46933	0.00000	20
50	6.72697	3779	6.72697	3779	3.27303	0.00000	10	50	7.53683	616	7.53683	608	2.46317	0.00000	10
2	6.76476	3476	6.76476	3476	3.23524	0.00000	58	12	7.54291	608	7.54291	599	2.45709	0.00000	48
10	6.79952	3218	6.79952	3218	3.20048	0.00000	50	10	7.54890	599	7.54890	591	2.45110	0.00000	50
20	6.83170	2997	6.83170	2997	3.16830	0.00000	40	20	7.55481	591	7.55481	583	2.44519	0.00000	40
30	6.86167	2802	6.86167	2802	3.13833	0.00000	30	30	7.56064	583	7.56064	575	2.43936	0.00000	30
40	6.88969	2633	6.88969	2633	3.11031	0.00000	20	40	7.56639	575	7.56639	567	2.43361	0.00000	20
50	6.91602	2483	6.91602	2483	3.08398	0.00000	10	50	7.57206	567	7.57207	560	2.42793	0.00000	10
3	6.94085	2348	6.94085	2348	3.05915	0.00000	57	13	7.57767	561	7.57767	553	2.42233	0.00000	47
10	6.96433	2227	6.96433	2227	3.03567	0.00000	50	10	7.58320	553	7.58320	546	2.41680	0.00000	50
20	6.98660	2119	6.98660	2119	3.01340	0.00000	40	20	7.58866	546	7.58867	539	2.41133	0.00000	40
30	7.00779	2021	7.00779	2021	2.99221	0.00000	30	30	7.59406	540	7.59406	533	2.40594	0.00000	30
40	7.02800	1930	7.02800	1930	2.97200	0.00000	20	40	7.59939	533	7.59939	526	2.40061	0.00000	20
50	7.04730	1849	7.04730	1849	2.95270	0.00000	10	50	7.60465	526	7.60466	520	2.39534	0.00000	10
4	7.06579	1772	7.06579	1772	2.93421	0.00000	56	14	7.60985	520	7.60986	514	2.39014	0.00000	46
10	7.08351	1704	7.08352	1703	2.91648	0.00000	50	10	7.61499	514	7.61500	508	2.38500	0.00000	50
20	7.10055	1639	7.10055	1639	2.89945	0.00000	40	20	7.62007	508	7.62008	502	2.37992	0.00000	40
30	7.11694	1579	7.11694	1579	2.88306	0.00000	30	30	7.62509	502	7.62510	496	2.37490	0.00000	30
40	7.13273	1524	7.13273	1524	2.86727	0.00000	20	40	7.63006	497	7.63006	491	2.36994	0.00000	20
50	7.14797	1473	7.14797	1473	2.85203	0.00000	10	50	7.63496	490	7.63497	485	2.36503	0.00000	10
5	7.16270	1424	7.16270	1424	2.83730	0.00000	55	15	7.63982	486	7.63982	480	2.36018	0.00000	45
10	7.17694	1378	7.17694	1379	2.82306	0.00000	50	10	7.64461	479	7.64462	475	2.35538	0.00000	50
20	7.19072	1337	7.19073	1336	2.80927	0.00000	40	20	7.64936	475	7.64937	469	2.35063	0.00000	40
30	7.20409	1296	7.20409	1296	2.79591	0.00000	30	30	7.65406	470	7.65406	465	2.34594	0.00000	30
40	7.21705	1259	7.21705	1259	2.78295	0.00000	20	40	7.65870	464	7.65871	459	2.34129	0.00000	20
50	7.22964	1224	7.22964	1224	2.77036	0.00000	10	50	7.66330	460	7.66330	455	2.33670	0.00000	10
6	7.24188	1190	7.24188	1190	2.75812	0.00000	54	16	7.66784	454	7.66785	450	2.33215	0.00000	44
10	7.25378	1158	7.25378	1158	2.74622	0.00000	50	10	7.67235	451	7.67235	445	2.32765	0.00000	50
20	7.26536	1128	7.26536	1128	2.73461	0.00000	40	20	7.67680	445	7.67680	441	2.32320	0.00000	40
30	7.27664	1099	7.27664	1100	2.72336	0.00000	30	30	7.68121	441	7.68121	437	2.31879	9.99999	30
40	7.28763	1073	7.28764	1072	2.71236	0.00000	20	40	7.68557	436	7.68558	432	2.31442	9.99999	20
50	7.29831	1046	7.29836	1046	2.70164	0.00000	10	50	7.68989	432	7.68990	428	2.31010	9.99999	10
7	7.30882	1022	7.30882	1022	2.69118	0.00000	53	17	7.69417	428	7.69418	424	2.30582	9.99999	43
10	7.31904	999	7.31904	999	2.68096	0.00000	50	10	7.69841	424	7.69842	419	2.30158	9.99999	50
20	7.32903	976	7.32903	976	2.67097	0.00000	40	20	7.70261	420	7.70261	416	2.29739	9.99999	40
30	7.33879	954	7.33879	954	2.66121	0.00000	30	30	7.70676	415	7.70677	411	2.29323	9.99999	30
40	7.34833	934	7.34833	934	2.65167	0.00000	20	40	7.71088	412	7.71088	408	2.28912	9.99999	20
50	7.35767	915	7.35767	915	2.64233	0.00000	10	50	7.71496	408	7.71496	404	2.28504	9.99999	10
8	7.36682	895	7.36682	895	2.63318	0.00000	52	18	7.71900	404	7.71900	401	2.28100	9.99999	42
10	7.37577	877	7.37577	878	2.62423	0.00000	50	10	7.72300	400	7.72301	396	2.27699	9.99999	50
20	7.38454	860	7.38455	860	2.61545	0.00000	40	20	7.72697	397	7.72697	393	2.27303	9.99999	40
30	7.39314	844	7.39315	843	2.60685	0.00000	30	30	7.73090	393	7.73090	390	2.26910	9.99999	30
40	7.40158	827	7.40158	827	2.59842	0.00000	20	40	7.73479	389	7.73480	386	2.26520	9.99999	20
50	7.40985	812	7.40985	812	2.59015	0.00000	10	50	7.73865	386	7.73866	382	2.26134	9.99999	10
9	7.41797	797	7.41797	797	2.58203	0.00000	51	19	7.74248	383	7.74248	380	2.25752	9.99999	41
10	7.42594	782	7.42594	782	2.57406	0.00000	50	10	7.74627	379	7.74628	376	2.25372	9.99999	50
20	7.43376	769	7.43376	769	2.56624	0.00000	40	20	7.75003	376	7.75004	373	2.24996	9.99999	40
30	7.44145	755	7.44145	755	2.55855	0.00000	30	30	7.75376	373	7.75377	369	2.24623	9.99999	30
40	7.44900	743	7.44900	743	2.55100	0.00000	20	40	7.75745	369	7.75746	367	2.24254	9.99999	20
50	7.45643	730	7.45643	730	2.54357	0.00000	10	50	7.76112	367	7.76113	363	2.23887	9.99999	10
10	7.46373		7.46373		2.53627	0.00000	50	20	7.76475	363	7.76476		2.23524	9.99999	40
	Cos	d.	Cotg	d.c.	Tang	Sin			Cos	d.	Cotg	d.c.	Tang	Sin	

	Sin	d.	Tang	d.c	Cotg	Cos			Sin	d.	Tang	d.c	Cotg	Cos	
20'	7.76475	361	7.76476	361	2.23524	9.99999	40'	30'	7.94084	241	7.94086	240	2.05914	9.99998	30'
10	7.76836	357	7.76837	357	2.23163	9.99999	50	10	7.94325	239	7.94326	240	2.05674	9.99998	50
20	7.77193	355	7.77194	355	2.22806	9.99999	40	20	7.94564	238	7.94566	238	2.05434	9.99998	40
30	7.77548	351	7.77549	351	2.22451	9.99999	30	30	7.94802	237	7.94804	236	2.05196	9.99998	30
40	7.77899	349	7.77900	349	2.22100	9.99999	20	40	7.95039	235	7.95040	236	2.04960	9.99998	20
50	7.78248	346	7.78249	346	2.21751	9.99999	10	50	7.95274	234	7.95276	234	2.04724	9.99998	10
21'	7.78594	344	7.78595	343	2.21405	9.99999	39'	31'	7.95508	233	7.95510	233	2.04490	9.99998	29'
10	7.78938	340	7.78938	341	2.21062	9.99999	50	10	7.95741	232	7.95743	231	2.04257	9.99998	50
20	7.79278	338	7.79279	338	2.20721	9.99999	40	20	7.95973	230	7.95974	231	2.04026	9.99998	40
30	7.79616	336	7.79617	335	2.20383	9.99999	30	30	7.96203	229	7.96205	229	2.03795	9.99998	30
40	7.79952	332	7.79952	333	2.20048	9.99999	20	40	7.96432	228	7.96434	228	2.03566	9.99998	20
50	7.80284	331	7.80285	330	2.19715	9.99999	10	50	7.96660	227	7.96662	227	2.03338	9.99998	10
22'	7.80615	327	7.80615	328	2.19385	9.99999	38'	32'	7.96887	226	7.96889	225	2.03111	9.99998	28'
10	7.80942	326	7.80943	326	2.19057	9.99999	50	10	7.97113	224	7.97114	225	2.02886	9.99998	50
20	7.81268	323	7.81269	322	2.18731	9.99999	40	20	7.97337	223	7.97339	223	2.02661	9.99998	40
30	7.81591	320	7.81591	321	2.18409	9.99999	30	30	7.97560	222	7.97562	222	2.02438	9.99998	30
40	7.81911	318	7.81912	318	2.18088	9.99999	20	40	7.97782	221	7.97784	221	2.02216	9.99998	20
50	7.82229	316	7.82230	316	2.17770	9.99999	10	50	7.98003	220	7.98005	220	2.01995	9.99998	10
23'	7.82545	314	7.82546	314	2.17454	9.99999	37'	33'	7.98223	219	7.98225	219	2.01775	9.99998	27'
10	7.82859	311	7.82860	311	2.17140	9.99999	50	10	7.98442	218	7.98444	218	2.01556	9.99998	50
20	7.83170	309	7.83171	309	2.16829	9.99999	40	20	7.98660	216	7.98662	216	2.01338	9.99998	40
30	7.83479	307	7.83480	307	2.16520	9.99999	30	30	7.98876	216	7.98878	216	2.01122	9.99998	30
40	7.83786	305	7.83787	305	2.16213	9.99999	20	40	7.99092	214	7.99094	214	2.00906	9.99998	20
50	7.84091	302	7.84092	302	2.15908	9.99999	10	50	7.99306	214	7.99308	214	2.00692	9.99998	10
24'	7.84393	301	7.84394	301	2.15606	9.99999	36'	34'	7.99520	212	7.99522	212	2.00478	9.99998	26'
10	7.84694	298	7.84695	298	2.15305	9.99999	50	10	7.99732	211	7.99734	212	2.00266	9.99998	50
20	7.84992	297	7.84993	297	2.15007	9.99999	40	20	7.99943	211	7.99946	210	2.00054	9.99998	40
30	7.85289	294	7.85290	294	2.14710	9.99999	30	30	8.00154	209	8.00156	209	1.99844	9.99998	30
40	7.85583	293	7.85584	293	2.14416	9.99999	20	40	8.00363	208	8.00365	209	1.99635	9.99998	20
50	7.85876	290	7.85877	290	2.14123	9.99999	10	50	8.00571	208	8.00574	207	1.99426	9.99998	10
25'	7.86166	289	7.86167	289	2.13833	9.99999	35'	35'	8.00779	206	8.00781	206	1.99219	9.99998	25'
10	7.86455	286	7.86456	287	2.13544	9.99999	50	10	8.00985	205	8.00987	206	1.99013	9.99998	50
20	7.86741	285	7.86743	284	2.13257	9.99999	40	20	8.01190	205	8.01193	204	1.98807	9.99998	40
30	7.87026	283	7.87027	283	2.12973	9.99999	30	30	8.01395	203	8.01397	203	1.98603	9.99998	30
40	7.87309	281	7.87310	281	2.12690	9.99999	20	40	8.01598	203	8.01600	203	1.98400	9.99998	20
50	7.87590	280	7.87591	280	2.12409	9.99999	10	50	8.01801	201	8.01803	201	1.98197	9.99998	10
26'	7.87870	277	7.87871	277	2.12129	9.99999	34'	36'	8.02002	201	8.02004	201	1.97996	9.99998	24'
10	7.88147	276	7.88148	276	2.11852	9.99999	50	10	8.02203	199	8.02205	200	1.97795	9.99998	50
20	7.88423	274	7.88424	274	2.11576	9.99999	40	20	8.02402	199	8.02405	199	1.97595	9.99998	40
30	7.88697	272	7.88698	272	2.11302	9.99999	30	30	8.02601	198	8.02604	197	1.97396	9.99998	30
40	7.88969	271	7.88970	271	2.11030	9.99999	20	40	8.02799	197	8.02801	197	1.97199	9.99998	20
50	7.89240	269	7.89241	269	2.10759	9.99999	10	50	8.02996	196	8.02998	196	1.97002	9.99998	10
27'	7.89509	267	7.89510	267	2.10490	9.99999	33'	37'	8.03192	195	8.03194	196	1.96806	9.99997	23'
10	7.89776	265	7.89777	266	2.10223	9.99999	50	10	8.03387	194	8.03390	194	1.96610	9.99997	50
20	7.90041	264	7.90043	264	2.09957	9.99999	40	20	8.03581	194	8.03584	193	1.96416	9.99997	40
30	7.90305	263	7.90307	262	2.09693	9.99999	30	30	8.03775	192	8.03777	193	1.96223	9.99997	30
40	7.90568	261	7.90569	261	2.09431	9.99999	20	40	8.03967	192	8.03970	192	1.96030	9.99997	20
50	7.90829	259	7.90830	259	2.09170	9.99999	10	50	8.04159	191	8.04162	191	1.95838	9.99997	10
28'	7.91088	258	7.91089	258	2.08911	9.99999	32'	38'	8.04350	190	8.04353	190	1.95647	9.99997	22'
10	7.91346	256	7.91347	256	2.08653	9.99999	50	10	8.04540	189	8.04543	189	1.95457	9.99997	50
20	7.91602	255	7.91603	255	2.08397	9.99999	40	20	8.04729	189	8.04732	189	1.95268	9.99997	40
30	7.91857	253	7.91858	253	2.08142	9.99999	30	30	8.04918	187	8.04921	187	1.95079	9.99997	30
40	7.92110	252	7.92111	252	2.07889	9.99998	20	40	8.05105	187	8.05108	187	1.94892	9.99997	20
50	7.92362	250	7.92363	250	2.07637	9.99998	10	50	8.05292	186	8.05295	186	1.94705	9.99997	10
29'	7.92612	249	7.92613	249	2.07387	9.99998	31'	39'	8.05478	185	8.05481	185	1.94519	9.99997	21'
10	7.92861	247	7.92862	248	2.07138	9.99998	50	10	8.05663	185	8.05666	185	1.94334	9.99997	50
20	7.93108	246	7.93110	246	2.06890	9.99998	40	20	8.05848	183	8.05851	183	1.94149	9.99997	40
30	7.93354	245	7.93356	245	2.06644	9.99998	30	30	8.06031	183	8.06034	183	1.93966	9.99997	30
40	7.93599	243	7.93601	243	2.06399	9.99998	20	40	8.06214	182	8.06217	182	1.93783	9.99997	20
50	7.93842	242	7.93844	242	2.06156	9.99998	10	50	8.06396	182	8.06399	182	1.93601	9.99997	10
30'	7.94084		7.94086		2.05914	9.99998	30'	40'	8.06578		8.06581		1.93419	9.99997	20'
	Cos	d.	Cotg	d.c	Tang	Sin			Cos	d.	Cotg	d.c	Tang	Sin	

	Sin	d.	Tang	d.c	Cotg	Cos			Sin	d.	Tang	d.c	Cotg	Cos	
40'	8.06578	180	8.06581	180	1.93419	9.99997	20'	50'	8.16268	145	8.16273	144	1.83727	9.99995	10'
10	8.06758	180	8.06761	180	1.93239	9.99997	50	10	8.16413	145	8.16417	144	1.83583	9.99995	50
20	8.06938	180	8.06941	180	1.93059	9.99997	40	20	8.16557	144	8.16561	144	1.83439	9.99995	40
30	8.07117	179	8.07120	179	1.92880	9.99997	30	30	8.16700	143	8.16705	144	1.83295	9.99995	30
40	8.07295	178	8.07298	178	1.92702	9.99997	20	40	8.16843	143	8.16848	143	1.83152	9.99995	20
50	8.07473	178	8.07476	178	1.92524	9.99997	10	50	8.16986	143	8.16991	143	1.83009	9.99995	10
41'	8.07650	177	8.07653	177	1.92347	9.99997	19'	51'	8.17128	142	8.17133	142	1.82867	9.99995	9
10	8.07826	176	8.07829	176	1.92171	9.99997	50	10	8.17270	141	8.17275	141	1.82725	9.99995	50
20	8.08002	176	8.08005	176	1.91995	9.99997	40	20	8.17411	141	8.17416	141	1.82584	9.99995	40
30	8.08176	174	8.08180	174	1.91820	9.99997	30	30	8.17552	140	8.17557	140	1.82443	9.99995	30
40	8.08350	174	8.08354	174	1.91646	9.99997	20	40	8.17692	140	8.17697	140	1.82303	9.99995	20
50	8.08524	174	8.08527	173	1.91473	9.99997	10	50	8.17832	140	8.17837	140	1.82163	9.99995	10
42'	8.08696	172	8.08700	173	1.91300	9.99997	18'	52'	8.17971	139	8.17976	139	1.82024	9.99995	8
10	8.08868	172	8.08872	172	1.91128	9.99997	50	10	8.18110	139	8.18115	139	1.81885	9.99995	50
20	8.09040	172	8.09043	171	1.90957	9.99997	40	20	8.18249	138	8.18254	138	1.81746	9.99995	40
30	8.09210	170	8.09214	171	1.90786	9.99997	30	30	8.18387	137	8.18392	138	1.81608	9.99995	30
40	8.09380	170	8.09384	169	1.90616	9.99997	20	40	8.18524	137	8.18530	138	1.81470	9.99995	20
50	8.09550	168	8.09553	169	1.90447	9.99997	10	50	8.18662	136	8.18667	137	1.81333	9.99995	10
43'	8.09718	168	8.09722	168	1.90278	9.99997	17'	53'	8.18798	136	8.18804	136	1.81196	9.99995	7
10	8.09886	168	8.09890	167	1.90110	9.99997	50	10	8.18935	135	8.18940	136	1.81060	9.99995	50
20	8.10054	166	8.10057	167	1.89943	9.99997	40	20	8.19071	135	8.19076	135	1.80924	9.99995	40
30	8.10220	166	8.10224	166	1.89776	9.99997	30	30	8.19206	135	8.19211	135	1.80789	9.99995	30
40	8.10386	166	8.10390	165	1.89610	9.99996	20	40	8.19341	135	8.19347	134	1.80653	9.99995	20
50	8.10552	165	8.10555	165	1.89445	9.99996	10	50	8.19476	134	8.19481	135	1.80519	9.99995	10
44'	8.10717	164	8.10720	164	1.89280	9.99996	16'	54'	8.19610	134	8.19616	134	1.80384	9.99995	6
10	8.10881	163	8.10884	164	1.89116	9.99996	50	10	8.19744	133	8.19749	134	1.80251	9.99995	50
20	8.11044	163	8.11048	163	1.88952	9.99996	40	20	8.19877	133	8.19883	133	1.80117	9.99995	40
30	8.11207	163	8.11211	162	1.88789	9.99996	30	30	8.20010	133	8.20016	133	1.79984	9.99995	30
40	8.11370	161	8.11373	162	1.88627	9.99996	20	40	8.20143	132	8.20149	132	1.79851	9.99995	20
50	8.11531	162	8.11535	161	1.88465	9.99996	10	50	8.20275	132	8.20281	132	1.79719	9.99994	10
45'	8.11693	160	8.11696	161	1.88304	9.99996	15'	55'	8.20407	131	8.20413	131	1.79587	9.99994	5
10	8.11853	160	8.11857	160	1.88143	9.99996	50	10	8.20538	131	8.20544	131	1.79456	9.99994	50
20	8.12013	159	8.12017	159	1.87983	9.99996	40	20	8.20669	131	8.20675	131	1.79325	9.99994	40
30	8.12172	159	8.12176	159	1.87824	9.99996	30	30	8.20800	130	8.20806	130	1.79194	9.99994	30
40	8.12331	158	8.12335	158	1.87665	9.99996	20	40	8.20930	130	8.20936	130	1.79064	9.99994	20
50	8.12489	158	8.12493	158	1.87507	9.99996	10	50	8.21060	129	8.21066	130	1.78934	9.99994	10
46'	8.12647	157	8.12651	157	1.87349	9.99996	14'	56'	8.21189	129	8.21195	129	1.78805	9.99994	4
10	8.12804	157	8.12808	157	1.87192	9.99996	50	10	8.21319	128	8.21324	129	1.78676	9.99994	50
20	8.12961	156	8.12965	156	1.87035	9.99996	40	20	8.21447	128	8.21453	128	1.78547	9.99994	40
30	8.13117	155	8.13121	155	1.86879	9.99996	30	30	8.21576	127	8.21581	128	1.78419	9.99994	30
40	8.13272	155	8.13276	155	1.86724	9.99996	20	40	8.21703	127	8.21709	128	1.78291	9.99994	20
50	8.13427	154	8.13431	154	1.86569	9.99996	10	50	8.21831	127	8.21837	128	1.78163	9.99994	10
47'	8.13581	154	8.13585	154	1.86415	9.99996	13'	57'	8.21958	127	8.21964	127	1.78036	9.99994	3
10	8.13735	153	8.13739	153	1.86261	9.99996	50	10	8.22085	126	8.22091	126	1.77909	9.99994	50
20	8.13888	153	8.13892	153	1.86108	9.99996	40	20	8.22211	126	8.22217	126	1.77783	9.99994	40
30	8.14041	152	8.14045	152	1.85955	9.99996	30	30	8.22337	126	8.22343	126	1.77657	9.99994	30
40	8.14193	151	8.14197	151	1.85803	9.99996	20	40	8.22463	125	8.22469	126	1.77531	9.99994	20
50	8.14344	151	8.14348	151	1.85652	9.99996	10	50	8.22588	125	8.22595	125	1.77405	9.99994	10
48'	8.14495	151	8.14500	150	1.85500	9.99996	12'	58'	8.22713	125	8.22720	125	1.77280	9.99994	2
10	8.14646	150	8.14650	150	1.85350	9.99996	50	10	8.22838	124	8.22844	124	1.77156	9.99994	50
20	8.14796	149	8.14800	150	1.85200	9.99996	40	20	8.22962	124	8.22968	124	1.77032	9.99994	40
30	8.14945	149	8.14950	149	1.85050	9.99996	30	30	8.23086	124	8.23092	124	1.76908	9.99994	30
40	8.15094	149	8.15099	148	1.84901	9.99996	20	40	8.23210	123	8.23216	123	1.76784	9.99994	20
50	8.15243	148	8.15247	148	1.84753	9.99996	10	50	8.23333	123	8.23339	123	1.76661	9.99994	10
49'	8.15391	147	8.15395	148	1.84605	9.99996	11'	59'	8.23456	122	8.23462	123	1.76538	9.99994	1
10	8.15538	147	8.15543	147	1.84457	9.99996	50	10	8.23578	122	8.23585	122	1.76415	9.99994	50
20	8.15685	147	8.15690	146	1.84310	9.99996	40	20	8.23700	122	8.23707	122	1.76293	9.99994	40
30	8.15832	146	8.15836	146	1.84164	9.99995	30	30	8.23822	122	8.23829	121	1.76171	9.99993	30
40	8.15978	145	8.15982	146	1.84018	9.99995	20	40	8.23944	121	8.23950	121	1.76050	9.99993	20
50	8.16123	145	8.16128	145	1.83872	9.99995	10	50	8.24065	121	8.24071	121	1.75929	9.99993	10
50'	8.16268	145	8.16273	145	1.83727	9.99995	10'	60'	8.24186	121	8.24192	121	1.75808	9.99993	0'
	Cos	d.	Cotg	d.c	Tang	Sin			Cos	d.	Cotg	d.c	Tang	Sin	

	Sin	d.	Tang	d.c	Cotg	Cos			Sin	d.	Tang	d.c	Cotg	Cos	
0	8.24186		8.24192		1.75808	9.99993	60	10	8.30879		8.30888		1.69112	9.99991	50
10	8.24306	120	8.24313	121	1.75687	9.99993	50	10	8.30983	104	8.30992	104	1.69008	9.99991	50
20	8.24426	120	8.24433	120	1.75567	9.99993	40	20	8.31086	103	8.31095	103	1.68905	9.99991	40
30	8.24546	120	8.24553	120	1.75447	9.99993	30	30	8.31188	102	8.31198	103	1.68802	9.99991	30
40	8.24665	119	8.24672	119	1.75328	9.99993	20	40	8.31291	102	8.31300	102	1.68700	9.99991	20
50	8.24785	118	8.24791	119	1.75209	9.99993	10	50	8.31393	102	8.31403	102	1.68597	9.99991	10
1	8.24903	119	8.24910	119	1.75090	9.99993	59	11	8.31495	102	8.31505	101	1.68495	9.99991	49
10	8.25022	118	8.25029	118	1.74971	9.99993	50	10	8.31597	102	8.31606	102	1.68394	9.99991	50
20	8.25140	118	8.25147	118	1.74853	9.99993	40	20	8.31699	101	8.31708	101	1.68292	9.99991	40
30	8.25258	117	8.25265	117	1.74735	9.99993	30	30	8.31800	101	8.31809	102	1.68191	9.99991	30
40	8.25375	118	8.25382	118	1.74618	9.99993	20	40	8.31901	101	8.31911	101	1.68089	9.99991	20
50	8.25493	116	8.25500	116	1.74500	9.99993	10	50	8.32002	101	8.32012	100	1.67988	9.99991	10
2	8.25609	117	8.25616	117	1.74384	9.99993	58	12	8.32103	100	8.32112	101	1.67888	9.99990	48
10	8.25726	116	8.25733	116	1.74267	9.99993	50	10	8.32203	100	8.32213	100	1.67787	9.99990	50
20	8.25842	116	8.25849	116	1.74151	9.99993	40	20	8.32303	100	8.32313	100	1.67687	9.99990	40
30	8.25958	116	8.25965	116	1.74035	9.99993	30	30	8.32403	100	8.32413	100	1.67587	9.99990	30
40	8.26074	115	8.26081	115	1.73919	9.99993	20	40	8.32503	99	8.32513	99	1.67487	9.99990	20
50	8.26189	115	8.26196	116	1.73804	9.99993	10	50	8.32602	100	8.32612	99	1.67388	9.99990	10
3	8.26304	115	8.26312	114	1.73688	9.99993	5	13	8.32702	99	8.32711	99	1.67289	9.99990	47
10	8.26419	114	8.26426	115	1.73574	9.99993	50	10	8.32801	98	8.32810	99	1.67190	9.99990	50
20	8.26533	115	8.26541	114	1.73459	9.99993	40	20	8.32899	99	8.32909	99	1.67091	9.99990	40
30	8.26648	113	8.26655	114	1.73345	9.99993	30	30	8.32998	98	8.33008	98	1.66992	9.99990	30
40	8.26761	114	8.26769	113	1.73231	9.99993	20	40	8.33096	99	8.33106	99	1.66894	9.99990	20
50	8.26875	113	8.26882	114	1.73118	9.99993	10	50	8.33195	97	8.33205	97	1.66795	9.99990	10
4	8.26988	113	8.26996	113	1.73004	9.99992	56	14	8.33292	98	8.33302	98	1.66698	9.99990	46
10	8.27101	113	8.27109	112	1.72891	9.99992	50	10	8.33390	98	8.33400	98	1.66600	9.99990	50
20	8.27214	112	8.27221	113	1.72779	9.99992	40	20	8.33488	97	8.33498	97	1.66502	9.99990	40
30	8.27326	112	8.27334	112	1.72666	9.99992	30	30	8.33585	97	8.33595	97	1.66405	9.99990	30
40	8.27438	112	8.27446	112	1.72554	9.99992	20	40	8.33682	97	8.33692	97	1.66308	9.99990	20
50	8.27550	111	8.27558	111	1.72442	9.99992	10	50	8.33779	96	8.33789	97	1.66211	9.99990	10
5	8.27661	112	8.27669	111	1.72331	9.99992	55	15	8.33875	97	8.33886	96	1.66114	9.99990	45
10	8.27773	110	8.27780	111	1.72220	9.99992	50	10	8.33972	96	8.33982	96	1.66018	9.99990	50
20	8.27883	111	8.27891	111	1.72109	9.99992	40	20	8.34068	96	8.34078	96	1.65922	9.99990	40
30	8.27994	110	8.28002	110	1.71998	9.99992	30	30	8.34164	96	8.34174	96	1.65826	9.99990	30
40	8.28104	111	8.28112	111	1.71888	9.99992	20	40	8.34260	95	8.34270	96	1.65730	9.99989	20
50	8.28215	109	8.28223	109	1.71777	9.99992	10	50	8.34355	95	8.34366	95	1.65634	9.99989	10
6	8.28324	110	8.28332	110	1.71668	9.99992	54	16	8.34450	96	8.34461	95	1.65539	9.99989	44
10	8.28434	109	8.28442	109	1.71558	9.99992	50	10	8.34546	94	8.34556	95	1.65444	9.99989	50
20	8.28543	109	8.28551	109	1.71449	9.99992	40	20	8.34640	95	8.34651	95	1.65349	9.99989	40
30	8.28652	109	8.28660	109	1.71340	9.99992	30	30	8.34735	95	8.34746	94	1.65254	9.99989	30
40	8.28761	108	8.28769	108	1.71231	9.99992	20	40	8.34830	94	8.34840	95	1.65160	9.99989	20
50	8.28869	108	8.28877	109	1.71123	9.99992	10	50	8.34924	94	8.34935	94	1.65065	9.99989	10
7	8.28977	108	8.28986	108	1.71014	9.99992	53	17	8.35018	94	8.35029	94	1.64971	9.99989	43
10	8.29085	108	8.29094	107	1.70906	9.99992	50	10	8.35112	94	8.35123	94	1.64877	9.99989	50
20	8.29193	107	8.29201	108	1.70799	9.99992	40	20	8.35206	93	8.35217	93	1.64783	9.99989	40
30	8.29300	107	8.29309	107	1.70691	9.99992	30	30	8.35299	93	8.35310	93	1.64690	9.99989	30
40	8.29407	107	8.29416	107	1.70584	9.99992	20	40	8.35392	93	8.35403	94	1.64597	9.99989	20
50	8.29514	107	8.29523	106	1.70477	9.99992	10	50	8.35485	93	8.35497	93	1.64503	9.99989	10
8	8.29621	106	8.29629	107	1.70371	9.99992	52	18	8.35578	93	8.35590	92	1.64410	9.99989	42
10	8.29727	106	8.29736	106	1.70264	9.99991	50	10	8.35671	93	8.35682	93	1.64318	9.99989	50
20	8.29833	106	8.29842	105	1.70158	9.99991	40	20	8.35764	92	8.35775	92	1.64225	9.99989	40
30	8.29939	105	8.29947	106	1.70053	9.99991	30	30	8.35856	92	8.35867	92	1.64133	9.99989	30
40	8.30044	106	8.30053	105	1.69947	9.99991	20	40	8.35948	92	8.35959	92	1.64041	9.99989	20
50	8.30150	105	8.30158	105	1.69842	9.99991	10	50	8.36040	91	8.36051	92	1.63949	9.99989	10
9	8.30255	104	8.30263	105	1.69737	9.99991	51	19	8.36131	92	8.36143	92	1.63857	9.99989	41
10	8.30359	105	8.30368	105	1.69632	9.99991	50	10	8.36223	91	8.36235	91	1.63765	9.99988	50
20	8.30464	104	8.30473	104	1.69527	9.99991	40	20	8.36314	91	8.36326	91	1.63674	9.99988	40
30	8.30568	104	8.30577	104	1.69423	9.99991	30	30	8.36405	91	8.36417	91	1.63583	9.99988	30
40	8.30672	104	8.30681	104	1.69319	9.99991	20	40	8.36496	91	8.36508	91	1.63492	9.99988	20
50	8.30776	103	8.30785	103	1.69215	9.99991	10	50	8.36587	91	8.36599	90	1.63401	9.99988	10
10	8.30879		8.30888		1.69112	9.99991	50	20	8.36678		8.36689		1.63311	9.99988	40
	Cos	d.	Cotg	d.c	Tang	Sin			Cos	d.	Cotg	d.c	Tang	Sin	

	Sin	d.	Tang	d.c	Cotg	Cos			Sin	d.	Tang	d.c	Cotg	Cos	
20	8.36678		8.36689		1.63311	9.99988	40	30	8.41792		8.41807		1.58193	9.99985	30
10	8.36768	90	8.36780	91	1.63220	9.99988	50	10	8.41872	80	8.41887	80	1.58113	9.99985	50
20	8.36858	90	8.36870	90	1.63130	9.99988	40	20	8.41952	80	8.41967	80	1.58033	9.99985	40
30	8.36948	90	8.36960	90	1.63040	9.99988	30	30	8.42032	80	8.42048	79	1.57952	9.99985	30
40	8.37038	90	8.37050	90	1.62950	9.99988	20	40	8.42112	80	8.42127	80	1.57873	9.99985	20
50	8.37128	89	8.37140	89	1.62860	9.99988	10	50	8.42192	80	8.42207	80	1.57793	9.99985	10
21	8.37217	89	8.37229	89	1.62771	9.99988	39	31	8.42272	79	8.42287	79	1.57713	9.99985	29
10	8.37306	89	8.37318	90	1.62682	9.99988	50	10	8.42351	79	8.42366	80	1.57634	9.99985	50
20	8.37395	89	8.37408	89	1.62592	9.99988	40	20	8.42430	80	8.42446	79	1.57554	9.99985	40
30	8.37484	89	8.37497	88	1.62503	9.99988	30	30	8.42510	79	8.42525	79	1.57475	9.99985	30
40	8.37573	89	8.37585	89	1.62415	9.99988	20	40	8.42589	78	8.42604	79	1.57396	9.99985	20
50	8.37662	88	8.37674	88	1.62326	9.99988	10	50	8.42667	79	8.42683	79	1.57317	9.99985	10
22	8.37750	88	8.37762	88	1.62238	9.99988	38	32	8.42746	79	8.42762	78	1.57238	9.99984	28
10	8.37838	88	8.37850	88	1.62150	9.99988	50	10	8.42825	78	8.42840	79	1.57160	9.99984	50
20	8.37926	88	8.37938	88	1.62062	9.99988	40	20	8.42903	79	8.42919	78	1.57081	9.99984	40
30	8.38014	87	8.38026	88	1.61974	9.99987	30	30	8.42982	78	8.42997	78	1.57003	9.99984	30
40	8.38101	88	8.38114	88	1.61886	9.99987	20	40	8.43060	78	8.43075	79	1.56925	9.99984	20
50	8.38189	87	8.38202	87	1.61798	9.99987	10	50	8.43138	78	8.43154	78	1.56846	9.99984	10
23	8.38276	87	8.38289	87	1.61711	9.99987	37	33	8.43216	77	8.43232	77	1.56768	9.99984	27
10	8.38363	87	8.38376	87	1.61624	9.99987	50	10	8.43293	78	8.43309	78	1.56691	9.99984	50
20	8.38450	87	8.38463	87	1.61537	9.99987	40	20	8.43371	77	8.43387	77	1.56613	9.99984	40
30	8.38537	87	8.38550	86	1.61450	9.99987	30	30	8.43448	78	8.43464	78	1.56536	9.99984	30
40	8.38624	86	8.38636	87	1.61364	9.99987	20	40	8.43526	77	8.43542	77	1.56458	9.99984	20
50	8.38710	86	8.38723	86	1.61277	9.99987	10	50	8.43603	77	8.43619	77	1.56381	9.99984	10
24	8.38796	86	8.38809	86	1.61191	9.99987	36	34	8.43680	77	8.43696	77	1.56304	9.99984	26
10	8.38882	86	8.38895	86	1.61105	9.99987	50	10	8.43757	77	8.43773	77	1.56227	9.99984	50
20	8.38968	86	8.38981	86	1.61019	9.99987	40	20	8.43834	76	8.43850	77	1.56150	9.99984	40
30	8.39054	85	8.39067	86	1.60933	9.99987	30	30	8.43910	77	8.43927	76	1.56073	9.99984	30
40	8.39139	85	8.39153	85	1.60847	9.99987	20	40	8.43987	76	8.44003	77	1.55997	9.99984	20
50	8.39225	85	8.39238	85	1.60762	9.99987	10	50	8.44063	76	8.44080	76	1.55920	9.99983	10
25	8.39310	85	8.39323	85	1.60677	9.99987	35	35	8.44139	77	8.44156	76	1.55844	9.99983	25
10	8.39395	85	8.39408	85	1.60592	9.99987	50	10	8.44216	76	8.44232	76	1.55768	9.99983	50
20	8.39480	85	8.39493	85	1.60507	9.99987	40	20	8.44292	75	8.44308	76	1.55692	9.99983	40
30	8.39565	84	8.39578	85	1.60422	9.99987	30	30	8.44367	76	8.44384	76	1.55616	9.99983	30
40	8.39649	85	8.39663	84	1.60337	9.99987	20	40	8.44443	76	8.44460	76	1.55540	9.99983	20
50	8.39734	84	8.39747	85	1.60253	9.99986	10	50	8.44519	75	8.44536	75	1.55464	9.99983	10
26	8.39818	84	8.39832	84	1.60168	9.99986	34	36	8.44594	75	8.44611	75	1.55389	9.99983	24
10	8.39902	84	8.39916	84	1.60084	9.99986	50	10	8.44669	76	8.44686	76	1.55314	9.99983	50
20	8.39986	84	8.40000	83	1.60000	9.99986	40	20	8.44745	75	8.44762	75	1.55238	9.99983	40
30	8.40070	83	8.40083	84	1.59917	9.99986	30	30	8.44820	75	8.44837	75	1.55163	9.99983	30
40	8.40153	84	8.40167	83	1.59833	9.99986	20	40	8.44895	74	8.44912	75	1.55088	9.99983	20
50	8.40237	83	8.40250	84	1.59750	9.99986	10	50	8.44969	75	8.44987	74	1.55013	9.99983	10
27	8.40320	83	8.40334	83	1.59666	9.99986	33	37	8.45044	75	8.45061	75	1.54939	9.99983	28
10	8.40403	83	8.40417	83	1.59583	9.99986	50	10	8.45119	74	8.45136	74	1.54864	9.99983	50
20	8.40486	83	8.40500	83	1.59500	9.99986	40	20	8.45193	74	8.45210	75	1.54790	9.99983	40
30	8.40569	82	8.40583	82	1.59417	9.99986	30	30	8.45267	74	8.45285	74	1.54715	9.99983	30
40	8.40651	83	8.40665	83	1.59335	9.99986	20	40	8.45341	74	8.45359	74	1.54641	9.99982	20
50	8.40734	82	8.40748	82	1.59252	9.99986	10	50	8.45415	74	8.45433	74	1.54567	9.99982	10
28	8.40816	82	8.40830	83	1.59170	9.99986	32	38	8.45489	74	8.45507	74	1.54493	9.99982	22
10	8.40898	82	8.40913	82	1.59087	9.99986	50	10	8.45563	74	8.45581	74	1.54419	9.99982	50
20	8.40980	82	8.40995	82	1.59005	9.99986	40	20	8.45637	73	8.45655	73	1.54345	9.99982	40
30	8.41062	82	8.41077	81	1.58923	9.99986	30	30	8.45710	74	8.45728	74	1.54272	9.99982	30
40	8.41144	81	8.41158	82	1.58842	9.99986	20	40	8.45784	73	8.45802	73	1.54198	9.99982	20
50	8.41225	82	8.41240	81	1.58760	9.99985	10	50	8.45857	73	8.45875	73	1.54125	9.99982	10
29	8.41307	81	8.41321	82	1.58679	9.99985	31	39	8.45930	73	8.45948	73	1.54052	9.99982	21
10	8.41388	81	8.41403	81	1.58597	9.99985	50	10	8.46003	73	8.46021	73	1.53979	9.99982	50
20	8.41469	81	8.41484	81	1.58516	9.99985	40	20	8.46076	73	8.46094	73	1.53906	9.99982	40
30	8.41550	81	8.41565	81	1.58435	9.99985	30	30	8.46149	73	8.46167	73	1.53833	9.99982	30
40	8.41631	80	8.41646	80	1.58354	9.99985	20	40	8.46222	72	8.46240	72	1.53760	9.99982	20
50	8.41711	81	8.41726	81	1.58274	9.99985	10	50	8.46294	72	8.46312	73	1.53688	9.99982	10
30	8.41792		8.41807		1.58193	9.99985	30	40	8.46366		8.46385		1.53615	9.99982	20
	Cos	d.	Cotg	d.c	Tang	Sin			Cos	d.	Cotg	d.c	Tang	Sin	

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	Sin	d.	Tang	d.c	Cotg	Cos			Sin	d.	Tang	d.c	Cotg	Cos	
40	8.46366	73	8.46385	72	1.53615	9.99982	20	50	8.50504	66	8.50527	66	1.49473	9.99978	10
10	8.46439	72	8.46457	72	1.53543	9.99982	50	10	8.50570	66	8.50593	65	1.49407	9.99978	50
20	8.46511	72	8.46529	73	1.53471	9.99982	40	20	8.50636	65	8.50658	66	1.49342	9.99978	40
30	8.46583	72	8.46602	72	1.53398	9.99981	30	30	8.50701	66	8.50724	65	1.49276	9.99978	30
40	8.46655	72	8.46674	71	1.53326	9.99981	20	40	8.50767	65	8.50789	66	1.49211	9.99977	20
50	8.46727	72	8.46745	72	1.53255	9.99981	10	50	8.50832	65	8.50855	65	1.49145	9.99977	10
41	8.46799	71	8.46817	72	1.53183	9.99981	19	51	8.50897	66	8.50920	65	1.49080	9.99977	9
10	8.46870	72	8.46889	71	1.53111	9.99981	50	10	8.50963	65	8.50985	65	1.49015	9.99977	50
20	8.46942	71	8.46960	72	1.53040	9.99981	40	20	8.51028	64	8.51050	65	1.48950	9.99977	40
30	8.47013	71	8.47032	71	1.52968	9.99981	30	30	8.51092	65	8.51115	65	1.48885	9.99977	30
40	8.47084	71	8.47103	71	1.52897	9.99981	20	40	8.51157	65	8.51180	65	1.48820	9.99977	20
50	8.47155	71	8.47174	71	1.52826	9.99981	10	50	8.51222	65	8.51245	65	1.48755	9.99977	10
42	8.47226	71	8.47245	71	1.52755	9.99981	18	52	8.51287	64	8.51310	64	1.48690	9.99977	8
10	8.47297	71	8.47316	71	1.52684	9.99981	50	10	8.51351	65	8.51374	65	1.48626	9.99977	50
20	8.47368	71	8.47387	71	1.52613	9.99981	40	20	8.51416	64	8.51439	64	1.48561	9.99977	40
30	8.47439	70	8.47458	70	1.52542	9.99981	30	30	8.51480	64	8.51503	65	1.48497	9.99977	30
40	8.47509	71	8.47528	71	1.52472	9.99981	20	40	8.51544	65	8.51568	64	1.48432	9.99977	20
50	8.47580	70	8.47599	70	1.52401	9.99981	10	50	8.51609	64	8.51632	64	1.48368	9.99977	10
43	8.47650	70	8.47669	71	1.52331	9.99981	17	53	8.51673	64	8.51696	64	1.48304	9.99977	7
10	8.47720	70	8.47740	70	1.52260	9.99980	50	10	8.51737	64	8.51760	64	1.48240	9.99976	50
20	8.47790	70	8.47810	70	1.52190	9.99980	40	20	8.51801	63	8.51824	64	1.48176	9.99976	40
30	8.47860	70	8.47880	70	1.52120	9.99980	30	30	8.51864	64	8.51888	64	1.48112	9.99976	30
40	8.47930	70	8.47950	70	1.52050	9.99980	20	40	8.51928	64	8.51952	63	1.48048	9.99976	20
50	8.48000	69	8.48020	69	1.51980	9.99980	10	50	8.51992	63	8.52015	64	1.47985	9.99976	10
44	8.48069	70	8.48089	70	1.51911	9.99980	16	54	8.52055	64	8.52079	64	1.47921	9.99976	6
10	8.48139	69	8.48159	69	1.51841	9.99980	50	10	8.52119	63	8.52143	63	1.47857	9.99976	50
20	8.48208	70	8.48228	70	1.51772	9.99980	40	20	8.52182	63	8.52206	63	1.47794	9.99976	40
30	8.48278	69	8.48298	69	1.51702	9.99980	30	30	8.52245	63	8.52269	63	1.47731	9.99976	30
40	8.48347	69	8.48367	69	1.51633	9.99980	20	40	8.52308	63	8.52332	64	1.47668	9.99976	20
50	8.48416	69	8.48436	69	1.51564	9.99980	10	50	8.52371	63	8.52396	63	1.47604	9.99976	10
45	8.48485	69	8.48505	69	1.51495	9.99980	15	55	8.52434	63	8.52459	63	1.47541	9.99976	5
10	8.48554	68	8.48574	69	1.51426	9.99980	50	10	8.52497	63	8.52522	62	1.47478	9.99976	50
20	8.48622	69	8.48643	68	1.51357	9.99980	40	20	8.52560	63	8.52584	63	1.47416	9.99976	40
30	8.48691	69	8.48711	69	1.51289	9.99980	30	30	8.52623	62	8.52647	63	1.47353	9.99975	30
40	8.48760	68	8.48780	69	1.51220	9.99979	20	40	8.52685	63	8.52710	62	1.47290	9.99975	20
50	8.48828	68	8.48849	68	1.51151	9.99979	10	50	8.52748	62	8.52772	63	1.47228	9.99975	10
46	8.48896	69	8.48917	68	1.51083	9.99979	14	56	8.52810	62	8.52835	62	1.47165	9.99975	4
10	8.48965	68	8.48985	68	1.51015	9.99979	50	10	8.52872	63	8.52897	63	1.47103	9.99975	50
20	8.49033	68	8.49053	68	1.50947	9.99979	40	20	8.52935	62	8.52960	62	1.47040	9.99975	40
30	8.49101	68	8.49121	68	1.50879	9.99979	30	30	8.52997	62	8.53022	62	1.46978	9.99975	30
40	8.49169	67	8.49189	68	1.50811	9.99979	20	40	8.53059	62	8.53084	62	1.46916	9.99975	20
50	8.49236	68	8.49257	68	1.50743	9.99979	10	50	8.53121	62	8.53146	62	1.46854	9.99975	10
47	8.49304	68	8.49325	68	1.50675	9.99979	13	57	8.53183	62	8.53208	62	1.46792	9.99975	3
10	8.49372	67	8.49393	67	1.50607	9.99979	50	10	8.53245	61	8.53270	62	1.46730	9.99975	50
20	8.49439	67	8.49460	68	1.50540	9.99979	40	20	8.53306	62	8.53332	61	1.46668	9.99975	40
30	8.49506	68	8.49528	67	1.50472	9.99979	30	30	8.53368	61	8.53393	62	1.46607	9.99975	30
40	8.49574	67	8.49595	67	1.50405	9.99979	20	40	8.53429	62	8.53455	61	1.46545	9.99975	20
50	8.49641	67	8.49662	67	1.50338	9.99979	10	50	8.53491	61	8.53516	62	1.46484	9.99974	10
48	8.49708	67	8.49729	67	1.50271	9.99979	12	58	8.53552	62	8.53578	61	1.46422	9.99974	2
10	8.49775	67	8.49796	67	1.50204	9.99978	50	10	8.53614	61	8.53639	61	1.46361	9.99974	50
20	8.49842	66	8.49863	67	1.50137	9.99978	40	20	8.53675	61	8.53700	62	1.46300	9.99974	40
30	8.49908	67	8.49930	67	1.50070	9.99978	30	30	8.53736	61	8.53762	61	1.46238	9.99974	30
40	8.49975	67	8.49997	66	1.50003	9.99978	20	40	8.53797	61	8.53823	61	1.46177	9.99974	20
50	8.50042	66	8.50063	67	1.49937	9.99978	10	50	8.53858	61	8.53884	61	1.46116	9.99974	10
49	8.50108	66	8.50130	66	1.49870	9.99978	11	59	8.53919	60	8.53945	60	1.46055	9.99974	1
10	8.50174	67	8.50196	67	1.49804	9.99978	50	10	8.53979	61	8.54005	61	1.45995	9.99974	50
20	8.50241	66	8.50263	66	1.49737	9.99978	40	20	8.54040	61	8.54066	61	1.45934	9.99974	40
30	8.50307	66	8.50329	66	1.49671	9.99978	30	30	8.54101	60	8.54127	60	1.45873	9.99974	30
40	8.50373	66	8.50395	66	1.49605	9.99978	20	40	8.54161	61	8.54187	61	1.45813	9.99974	20
50	8.50439	65	8.50461	66	1.49539	9.99978	10	50	8.54222	60	8.54248	60	1.45752	9.99974	10
50	8.50504		8.50527		1.49473	9.99978	10	60	8.54282		8.54308		1.45692	9.99974	0
	Cos	d.	Cotg	d.c	Tang	Sin			Cos	d.	Cotg	d.c	Tang	Sin	

	Sin	d.	Tang	d.c	Cotg	Cos			Sin	d.	Tang	d.c	Cotg	Cos	
0	8.54282	60	8.54308	61	1.45692	9.99974	60	10	8.57757	55	8.57788	55	1.42212	9.99969	50
10	8.54342	60	8.54369	60	1.45631	9.99973	50	10	8.57812	56	8.57843	56	1.42157	9.99969	50
20	8.54402	60	8.54429	60	1.45571	9.99973	40	20	8.57868	56	8.57899	56	1.42101	9.99969	40
30	8.54462	60	8.54489	60	1.45511	9.99973	30	30	8.57923	56	8.57955	56	1.42045	9.99969	30
40	8.54522	60	8.54549	60	1.45451	9.99973	20	40	8.57979	56	8.58010	56	1.41990	9.99969	20
50	8.54582	60	8.54609	60	1.45391	9.99973	10	50	8.58034	55	8.58065	55	1.41935	9.99969	10
1	8.54642	60	8.54669	60	1.45331	9.99973	59	11	8.58089	55	8.58121	55	1.41879	9.99968	49
10	8.54702	60	8.54729	60	1.45271	9.99973	50	10	8.58144	56	8.58176	56	1.41824	9.99968	50
20	8.54762	59	8.54789	59	1.45211	9.99973	40	20	8.58200	55	8.58231	55	1.41769	9.99968	40
30	8.54821	60	8.54848	60	1.45152	9.99973	30	30	8.58255	55	8.58286	55	1.41714	9.99968	30
40	8.54881	59	8.54908	59	1.45092	9.99973	20	40	8.58310	54	8.58341	55	1.41659	9.99968	20
50	8.54940	59	8.54967	60	1.45033	9.99973	10	50	8.58364	55	8.58396	55	1.41604	9.99968	10
2	8.54999	60	8.55027	59	1.44973	9.99973	58	12	8.58419	55	8.58451	55	1.41549	9.99968	48
10	8.55059	59	8.55086	59	1.44914	9.99973	50	10	8.58474	55	8.58506	55	1.41494	9.99968	50
20	8.55118	59	8.55145	60	1.44855	9.99972	40	20	8.58529	54	8.58561	55	1.41439	9.99968	40
30	8.55177	59	8.55205	59	1.44795	9.99972	30	30	8.58583	55	8.58616	54	1.41384	9.99968	30
40	8.55236	59	8.55264	59	1.44736	9.99972	20	40	8.58638	55	8.58670	55	1.41330	9.99968	20
50	8.55295	59	8.55323	59	1.44677	9.99972	10	50	8.58693	54	8.58725	54	1.41275	9.99968	10
3	8.55354	59	8.55382	59	1.44618	9.99972	57	13	8.58747	54	8.58779	55	1.41221	9.99967	47
10	8.55413	58	8.55441	58	1.44559	9.99972	50	10	8.58801	55	8.58834	54	1.41166	9.99967	50
20	8.55471	59	8.55499	59	1.44501	9.99972	40	20	8.58856	54	8.58888	55	1.41112	9.99967	40
30	8.55530	59	8.55558	59	1.44442	9.99972	30	30	8.58910	54	8.58943	54	1.41057	9.99967	30
40	8.55589	58	8.55617	58	1.44383	9.99972	20	40	8.58964	54	8.58997	54	1.41003	9.99967	20
50	8.55647	58	8.55675	59	1.44325	9.99972	10	50	8.59018	54	8.59051	54	1.40949	9.99967	10
4	8.55705	59	8.55734	58	1.44266	9.99972	56	14	8.59072	54	8.59104	54	1.40895	9.99967	46
10	8.55764	58	8.55792	58	1.44208	9.99972	50	10	8.59126	54	8.59159	54	1.40841	9.99967	50
20	8.55822	58	8.55850	59	1.44150	9.99972	40	20	8.59180	54	8.59213	54	1.40787	9.99967	40
30	8.55880	58	8.55909	58	1.44091	9.99972	30	30	8.59234	54	8.59267	54	1.40733	9.99967	30
40	8.55938	58	8.55967	58	1.44033	9.99971	20	40	8.59288	53	8.59321	54	1.40679	9.99967	20
50	8.55996	58	8.56025	58	1.43975	9.99971	10	50	8.59341	54	8.59375	53	1.40625	9.99967	10
5	8.56054	58	8.56083	58	1.43917	9.99971	55	15	8.59395	53	8.59428	54	1.40572	9.99967	45
10	8.56112	58	8.56141	58	1.43859	9.99971	50	10	8.59448	54	8.59482	54	1.40518	9.99966	50
20	8.56170	57	8.56199	57	1.43801	9.99971	40	20	8.59502	53	8.59536	53	1.40464	9.99966	40
30	8.56227	58	8.56256	58	1.43744	9.99971	30	30	8.59555	54	8.59589	53	1.40411	9.99966	30
40	8.56285	57	8.56314	58	1.43686	9.99971	20	40	8.59609	53	8.59642	54	1.40358	9.99966	20
50	8.56342	58	8.56372	57	1.43628	9.99971	10	50	8.59662	53	8.59696	53	1.40304	9.99966	10
6	8.56400	57	8.56429	58	1.43571	9.99971	54	16	8.59715	53	8.59749	53	1.40251	9.99966	44
10	8.56457	58	8.56487	57	1.43513	9.99971	50	10	8.59768	53	8.59802	54	1.40198	9.99966	50
20	8.56515	57	8.56544	57	1.43456	9.99971	40	20	8.59821	53	8.59856	53	1.40144	9.99966	40
30	8.56572	57	8.56601	58	1.43399	9.99971	30	30	8.59874	53	8.59909	53	1.40091	9.99966	30
40	8.56629	57	8.56659	57	1.43341	9.99971	20	40	8.59927	53	8.59962	53	1.40038	9.99966	20
50	8.56686	57	8.56716	57	1.43284	9.99970	10	50	8.59980	53	8.60015	53	1.39985	9.99966	10
7	8.56743	57	8.56773	57	1.43227	9.99970	53	17	8.60033	53	8.60068	53	1.39932	9.99966	43
10	8.56800	57	8.56830	57	1.43170	9.99970	50	10	8.60086	53	8.60121	52	1.39879	9.99965	50
20	8.56857	57	8.56887	57	1.43113	9.99970	40	20	8.60139	52	8.60173	53	1.39827	9.99965	40
30	8.56914	56	8.56944	56	1.43056	9.99970	30	30	8.60191	53	8.60226	53	1.39774	9.99965	30
40	8.56970	57	8.57000	57	1.43000	9.99970	20	40	8.60244	52	8.60279	52	1.39721	9.99965	20
50	8.57027	57	8.57057	57	1.42943	9.99970	10	50	8.60296	53	8.60331	53	1.39669	9.99965	10
8	8.57084	56	8.57114	56	1.42886	9.99970	52	18	8.60349	52	8.60384	52	1.39616	9.99965	42
10	8.57140	56	8.57170	57	1.42830	9.99970	50	10	8.60401	53	8.60436	53	1.39564	9.99965	50
20	8.57196	57	8.57227	56	1.42773	9.99970	40	20	8.60454	52	8.60489	52	1.39511	9.99965	40
30	8.57253	56	8.57283	57	1.42717	9.99970	30	30	8.60506	52	8.60541	52	1.39459	9.99965	30
40	8.57309	56	8.57340	56	1.42660	9.99970	20	40	8.60558	52	8.60593	53	1.39407	9.99965	20
50	8.57365	56	8.57396	56	1.42604	9.99969	10	50	8.60610	52	8.60646	52	1.39354	9.99965	10
9	8.57421	56	8.57452	56	1.42548	9.99969	51	19	8.60662	52	8.60698	52	1.39302	9.99964	41
10	8.57477	56	8.57508	56	1.42492	9.99969	50	10	8.60714	52	8.60750	52	1.39250	9.99964	50
20	8.57533	56	8.57564	56	1.42436	9.99969	40	20	8.60766	52	8.60802	52	1.39198	9.99964	40
30	8.57589	56	8.57620	56	1.42380	9.99969	30	30	8.60818	52	8.60854	52	1.39146	9.99964	30
40	8.57645	56	8.57676	56	1.42324	9.99969	20	40	8.60870	52	8.60906	52	1.39094	9.99964	20
50	8.57701	56	8.57732	56	1.42268	9.99969	10	50	8.60922	51	8.60958	51	1.39042	9.99964	10
10	8.57757		8.57788		1.42212	9.99969	50	20	8.60973		8.61009		1.38991	9.99964	40
	Cos	d.	Cotg	d.c	Tang	Sin			Cos	d.	Cotg	d.c	Tang	Sin	

2 GRAD.

	Sin	d.	Tang	d.c	Cotg	Cos			Sin	d.	Tang	d.c	Cotg	Cos	
20'	8.60973	52	8.61009	52	1.38991	9.99964	40'	30'	8.63968	48	8.64009	49	1.35991	9.99959	30'
10	8.61025	52	8.61061	52	1.38939	9.99964	50	10	8.64016	48	8.64058	48	1.35942	9.99959	50
20	8.61077	51	8.61113	51	1.38887	9.99964	40	20	8.64064	48	8.64106	48	1.35894	9.99958	40
30	8.61128	52	8.61164	52	1.38836	9.99954	30	30	8.64112	48	8.64154	48	1.35846	9.99958	30
40	8.61180	51	8.61216	51	1.38784	9.99964	20	40	8.64160	48	8.64202	48	1.35798	9.99958	20
50	8.61231	51	8.61267	52	1.38733	9.99964	10	50	8.64208	48	8.64250	48	1.35750	9.99958	10
21'	8.61282	52	8.61319	51	1.38681	9.99963	39'	31'	8.64256	48	8.64298	48	1.35702	9.99958	29'
10	8.61334	51	8.61370	52	1.38630	9.99963	50	10	8.64304	48	8.64346	48	1.35654	9.99958	50
20	8.61385	51	8.61422	51	1.38578	9.99963	40	20	8.64352	48	8.64394	48	1.35606	9.99958	40
30	8.61436	51	8.61473	51	1.38527	9.99963	30	30	8.64400	48	8.64442	48	1.35558	9.99958	30
40	8.61487	51	8.61524	51	1.38476	9.99963	20	40	8.64448	47	8.64490	48	1.35510	9.99958	20
50	8.61538	51	8.61575	51	1.38425	9.99963	10	50	8.64495	48	8.64538	47	1.35462	9.99958	10
22'	8.61589	51	8.61626	51	1.38374	9.99963	38'	32'	8.64543	47	8.64585	48	1.35415	9.99958	28'
10	8.61640	51	8.61677	51	1.38323	9.99963	50	10	8.64590	48	8.64633	48	1.35367	9.99957	50
20	8.61691	51	8.61728	51	1.38272	9.99963	40	20	8.64638	47	8.64681	47	1.35319	9.99957	40
30	8.61742	50	8.61779	51	1.38221	9.99963	30	30	8.64685	48	8.64728	48	1.35272	9.99957	30
40	8.61792	51	8.61830	51	1.38170	9.99963	20	40	8.64733	47	8.64776	47	1.35224	9.99957	20
50	8.61843	51	8.61881	50	1.38119	9.99963	10	50	8.64780	47	8.64823	47	1.35177	9.99957	10
23'	8.61894	50	8.61931	51	1.38069	9.99962	37'	33'	8.64827	48	8.64870	48	1.35130	9.99957	27'
10	8.61944	51	8.61982	51	1.38018	9.99962	50	10	8.64875	47	8.64918	48	1.35082	9.99957	50
20	8.61995	50	8.62033	50	1.37967	9.99962	40	20	8.64922	47	8.64965	47	1.35035	9.99957	40
30	8.62045	51	8.62083	51	1.37917	9.99962	30	30	8.64969	47	8.65012	48	1.34988	9.99957	30
40	8.62096	50	8.62134	50	1.37866	9.99962	20	40	8.65016	47	8.65060	47	1.34940	9.99957	20
50	8.62146	50	8.62184	50	1.37816	9.99962	10	50	8.65063	47	8.65107	47	1.34893	9.99957	10
24'	8.62196	50	8.62234	51	1.37766	9.99962	36'	34'	8.65110	47	8.65154	47	1.34846	9.99956	26'
10	8.62246	51	8.62285	50	1.37715	9.99962	50	10	8.65157	47	8.65201	47	1.34799	9.99956	50
20	8.62297	50	8.62335	50	1.37665	9.99962	40	20	8.65204	47	8.65248	47	1.34752	9.99956	40
30	8.62347	50	8.62385	50	1.37615	9.99962	30	30	8.65251	47	8.65295	47	1.34705	9.99956	30
40	8.62397	50	8.62435	50	1.37565	9.99962	20	40	8.65298	46	8.65342	46	1.34658	9.99956	20
50	8.62447	50	8.62485	50	1.37515	9.99962	10	50	8.65344	47	8.65388	47	1.34612	9.99956	10
25'	8.62497	49	8.62535	50	1.37465	9.99961	35'	35'	8.65391	47	8.65435	47	1.34565	9.99956	25'
10	8.62546	50	8.62585	50	1.37415	9.99961	50	10	8.65438	46	8.65482	47	1.34518	9.99956	50
20	8.62596	50	8.62635	50	1.37365	9.99961	40	20	8.65484	47	8.65529	46	1.34471	9.99956	40
30	8.62646	50	8.62685	50	1.37315	9.99961	30	30	8.65531	46	8.65575	47	1.34425	9.99956	30
40	8.62696	49	8.62735	49	1.37265	9.99961	20	40	8.65577	47	8.65622	46	1.34378	9.99955	20
50	8.62745	50	8.62784	50	1.37216	9.99961	10	50	8.65624	46	8.65668	47	1.34332	9.99955	10
26'	8.62795	49	8.62834	50	1.37166	9.99961	34'	36'	8.65670	47	8.65715	46	1.34285	9.99955	24'
10	8.62844	50	8.62884	49	1.37116	9.99961	50	10	8.65717	46	8.65761	47	1.34239	9.99955	50
20	8.62894	49	8.62933	50	1.37067	9.99961	40	20	8.65763	46	8.65808	46	1.34192	9.99955	40
30	8.62943	50	8.62983	49	1.37017	9.99961	30	30	8.65809	46	8.65854	46	1.34146	9.99955	30
40	8.62993	49	8.63032	49	1.36968	9.99960	20	40	8.65855	46	8.65900	47	1.34100	9.99955	20
50	8.63042	49	8.63081	50	1.36919	9.99960	10	50	8.65901	46	8.65947	46	1.34053	9.99955	10
27'	8.63091	49	8.63131	49	1.36869	9.99960	33'	37'	8.65947	47	8.65993	46	1.34007	9.99955	23'
10	8.63140	49	8.63180	49	1.36820	9.99960	50	10	8.65994	46	8.66039	46	1.33961	9.99955	50
20	8.63189	49	8.63229	49	1.36771	9.99960	40	20	8.66040	45	8.66085	46	1.33915	9.99955	40
30	8.63238	50	8.63278	50	1.36722	9.99960	30	30	8.66085	46	8.66131	46	1.33869	9.99954	30
40	8.63288	48	8.63328	49	1.36672	9.99960	20	40	8.66131	46	8.66177	46	1.33823	9.99954	20
50	8.63336	49	8.63377	49	1.36623	9.99960	10	50	8.66177	46	8.66223	46	1.33777	9.99954	10
28'	8.63385	49	8.63426	49	1.36574	9.99960	32'	38'	8.66223	46	8.66269	46	1.33731	9.99954	22'
10	8.63434	49	8.63475	48	1.36525	9.99960	50	10	8.66269	45	8.66315	46	1.33685	9.99954	50
20	8.63483	49	8.63523	49	1.36477	9.99960	40	20	8.66314	46	8.66361	45	1.33639	9.99954	40
30	8.63532	48	8.63572	49	1.36428	9.99959	30	30	8.66360	46	8.66406	46	1.33594	9.99954	30
40	8.63580	49	8.63621	49	1.36379	9.99959	20	40	8.66406	45	8.66452	46	1.33548	9.99954	20
50	8.63629	49	8.63670	48	1.36330	9.99959	10	50	8.66451	46	8.66498	45	1.33502	9.99954	10
29'	8.63678	48	8.63718	49	1.36282	9.99959	31'	39'	8.66497	45	8.66543	46	1.33457	9.99954	21'
10	8.63726	49	8.63767	49	1.36233	9.99959	50	10	8.66542	46	8.66589	45	1.33411	9.99953	50
20	8.63775	48	8.63816	48	1.36184	9.99959	40	20	8.66588	45	8.66634	46	1.33366	9.99953	40
30	8.63823	48	8.63864	49	1.36136	9.9995	30	30	8.66633	45	8.66680	45	1.33320	9.99953	30
40	8.63871	49	8.63913	48	1.36087	9.99959	20	40	8.66678	46	8.66725	46	1.33275	9.99953	20
50	8.63920	48	8.63961	48	1.36039	9.99959	10	50	8.66724	45	8.66771	45	1.33229	9.99953	10
30	8.63968		8.64009		1.35991	9.99959	30'	40'	8.66769		8.66816		1.33184	9.99953	20'
	Cos	d.	Cotg	d.c	Tang	Sin			Cos	d.	Cotg	d.c	Tang	Sin	

	Sin	d.	Tang	d.c	Cotg	Cos			Sin	d.	Tang	d.c	Cotg	Cos	
40	8.66769		8.66816		1.33184	9.99953	20	50	8.69400		8.69453		1.30547	9.99947	10
10	8.66814	45	8.66861	45	1.33139	9.99953	50	10	8.69442	42	8.69496	43	1.30504	9.99947	50
20	8.66859	45	8.66906	45	1.33094	9.99953	40	20	8.69485	43	8.69538	42	1.30462	9.99947	40
30	8.66904	45	8.66952	46	1.33048	9.99953	30	30	8.69527	42	8.69581	43	1.30419	9.99947	30
40	8.66949	45	8.66997	45	1.33003	9.99953	20	40	8.69570	43	8.69623	42	1.30377	9.99946	20
50	8.66994	45	8.67042	45	1.32958	9.99952	10	50	8.69612	42	8.69666	43	1.30334	9.99946	10
41	8.67039	45	8.67087	45	1.32913	9.99952	19	51	8.69654	42	8.69708	42	1.30292	9.99946	9
10	8.67084	45	8.67132	45	1.32868	9.99952	50	10	8.69697	43	8.69750	43	1.30250	9.99946	50
20	8.67129	45	8.67177	45	1.32823	9.99952	40	20	8.69739	42	8.69793	42	1.30207	9.99946	40
30	8.67174	45	8.67222	45	1.32778	9.99952	30	30	8.69781	42	8.69835	42	1.30165	9.99946	30
40	8.67219	44	8.67267	45	1.32733	9.99952	20	40	8.69823	42	8.69877	43	1.30123	9.99946	20
50	8.67263	45	8.67312	45	1.32688	9.99952	10	50	8.69865	42	8.69920	42	1.30080	9.99946	10
42	8.67308	45	8.67356	44	1.32644	9.99952	18	52	8.69907	42	8.69962	42	1.30038	9.99946	8
10	8.67353	44	8.67401	45	1.32599	9.99952	50	10	8.69949	42	8.70004	42	1.29996	9.99946	50
20	8.67397	45	8.67446	44	1.32554	9.99952	40	20	8.69991	42	8.70046	42	1.29954	9.99945	40
30	8.67442	44	8.67490	44	1.32510	9.99951	30	30	8.70033	42	8.70088	42	1.29912	9.99945	30
40	8.67486	45	8.67535	45	1.32465	9.99951	20	40	8.70075	42	8.70130	42	1.29870	9.99945	20
50	8.67531	44	8.67579	45	1.32421	9.99951	10	50	8.70117	42	8.70172	42	1.29828	9.99945	10
43	8.67575	44	8.67624	44	1.32376	9.99951	17	53	8.70159	42	8.70214	42	1.29786	9.99945	7
10	8.67619	45	8.67668	45	1.32332	9.99951	50	10	8.70201	41	8.70256	42	1.29744	9.99945	50
20	8.67664	44	8.67713	44	1.32287	9.99951	40	20	8.70242	42	8.70298	41	1.29702	9.99945	40
30	8.67708	44	8.67757	44	1.32243	9.99951	30	30	8.70284	42	8.70339	42	1.29661	9.99945	30
40	8.67752	44	8.67801	44	1.32199	9.99951	20	40	8.70326	41	8.70381	42	1.29619	9.99945	20
50	8.67796	45	8.67846	44	1.32154	9.99951	10	50	8.70367	42	8.70423	42	1.29577	9.99944	10
44	8.67841	44	8.67890	44	1.32110	9.99951	16	54	8.70409	42	8.70465	41	1.29535	9.99944	6
10	8.67885	44	8.67934	44	1.32066	9.99950	50	10	8.70451	41	8.70506	42	1.29494	9.99944	50
20	8.67929	44	8.67978	44	1.32022	9.99950	40	20	8.70492	42	8.70548	41	1.29452	9.99944	40
30	8.67973	44	8.68022	44	1.31978	9.99950	30	30	8.70534	41	8.70589	42	1.29411	9.99944	30
40	8.68017	43	8.68066	44	1.31934	9.99950	20	40	8.70575	41	8.70631	42	1.29369	9.99944	20
50	8.68060	44	8.68110	44	1.31890	9.99950	10	50	8.70616	42	8.70673	41	1.29327	9.99944	10
45	8.68104	44	8.68154	44	1.31846	9.99950	15	55	8.70658	41	8.70714	41	1.29286	9.99944	5
10	8.68148	44	8.68198	44	1.31802	9.99950	50	10	8.70699	41	8.70755	42	1.29245	9.99944	50
20	8.68192	44	8.68242	44	1.31758	9.99950	40	20	8.70740	41	8.70797	41	1.29203	9.99943	40
30	8.68236	43	8.68286	44	1.31714	9.99950	30	30	8.70781	42	8.70838	41	1.29162	9.99943	30
40	8.68279	44	8.68330	43	1.31670	9.99950	20	40	8.70823	41	8.70879	42	1.29121	9.99943	20
50	8.68323	44	8.68373	44	1.31627	9.99949	10	50	8.70864	41	8.70921	41	1.29079	9.99943	10
46	8.68367	43	8.68417	44	1.31583	9.99949	14	56	8.70905	41	8.70962	41	1.29038	9.99943	4
10	8.68410	44	8.68461	43	1.31539	9.99949	50	10	8.70946	41	8.71003	41	1.28997	9.99943	50
20	8.68454	43	8.68504	44	1.31496	9.99949	40	20	8.70987	41	8.71044	41	1.28956	9.99943	40
30	8.68497	43	8.68548	44	1.31452	9.99949	30	30	8.71028	41	8.71085	41	1.28915	9.99943	30
40	8.68540	44	8.68592	43	1.31408	9.99949	20	40	8.71069	41	8.71126	41	1.28874	9.99943	20
50	8.68584	43	8.68635	43	1.31365	9.99949	10	50	8.71110	41	8.71167	41	1.28833	9.99943	10
47	8.68627	43	8.68678	44	1.31322	9.99949	13	57	8.71151	41	8.71208	41	1.28792	9.99942	3
10	8.68670	44	8.68722	43	1.31278	9.99949	50	10	8.71192	40	8.71249	41	1.28751	9.99942	50
20	8.68714	43	8.68765	43	1.31235	9.99949	40	20	8.71232	41	8.71290	41	1.28710	9.99942	40
30	8.68757	43	8.68808	44	1.31192	9.99948	30	30	8.71273	41	8.71331	41	1.28669	9.99942	30
40	8.68800	43	8.68852	43	1.31148	9.99948	20	40	8.71314	41	8.71372	41	1.28628	9.99942	20
50	8.68843	43	8.68895	43	1.31105	9.99948	10	50	8.71355	40	8.71413	40	1.28587	9.99942	10
48	8.68886	43	8.68938	43	1.31062	9.99948	12	58	8.71395	41	8.71453	41	1.28547	9.99942	2
10	8.68929	43	8.68981	43	1.31019	9.99948	50	10	8.71436	40	8.71494	41	1.28506	9.99942	50
20	8.68972	43	8.69024	43	1.30976	9.99948	40	20	8.71476	41	8.71535	40	1.28465	9.99942	40
30	8.69015	43	8.69067	43	1.30933	9.99948	30	30	8.71517	40	8.71575	41	1.28425	9.99941	30
40	8.69058	43	8.69110	43	1.30890	9.99948	20	40	8.71557	41	8.71616	41	1.28384	9.99941	20
50	8.69101	43	8.69153	43	1.30847	9.99948	10	50	8.71598	40	8.71657	40	1.28343	9.99941	10
49	8.69144	43	8.69196	43	1.30804	9.99948	11	59	8.71638	41	8.71697	41	1.28303	9.99941	1
10	8.69187	42	8.69239	43	1.30761	9.99947	50	10	8.71679	40	8.71738	40	1.28262	9.99941	50
20	8.69229	43	8.69282	43	1.30718	9.99947	40	20	8.71719	40	8.71778	41	1.28222	9.99941	40
30	8.69272	43	8.69325	43	1.30675	9.99947	30	30	8.71759	41	8.71819	40	1.28181	9.99941	30
40	8.69315	42	8.69368	42	1.30632	9.99947	20	40	8.71800	40	8.71859	40	1.28141	9.99941	20
50	8.69357	43	8.69410	43	1.30590	9.99947	10	50	8.71840	40	8.71899	41	1.28101	9.99941	10
50	8.69400		8.69453		1.30547	9.99947	10	60	8.71880		8.71940		1.28060	9.99940	0
	Cos	d.	Cotg	d.c	Tang	Sin			Cos	d.	Cotg	d.c	Tang	Sin	

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	Sin	d.	Tang	d.c	Cotg	Cos			Sin	d.	Tang	d.c	Cotg	Cos	
0	8.71880		8.71940		1.28060	9.99940	60	10	8.74226		8.74292		1.25708	9.99934	50
10	8.71920	40	8.71980	40	1.28020	9.99940	50	10	8.74264	38	8.74330	38	1.25670	9.99934	50
20	8.71960	40	8.72020	40	1.27980	9.99940	40	20	8.74302	38	8.74369	39	1.25631	9.99933	40
30	8.72000	40	8.72060	40	1.27940	9.99940	30	30	8.74340	38	8.74407	38	1.25593	9.99933	30
40	8.72040	40	8.72100	41	1.27900	9.99940	20	40	8.74378	38	8.74445	38	1.25555	9.99933	20
50	8.72080	40	8.72141	40	1.27859	9.99940	10	50	8.74416	38	8.74483	38	1.25517	9.99933	10
1	8.72120	40	8.72181	40	1.27819	9.99940	59	11	8.74454	37	8.74521	38	1.25479	9.99933	49
10	8.72160	40	8.72221	40	1.27779	9.99940	50	10	8.74491	38	8.74559	38	1.25441	9.99933	50
20	8.72200	40	8.72261	40	1.27739	9.99940	40	20	8.74529	38	8.74597	38	1.25403	9.99933	40
30	8.72240	40	8.72301	40	1.27699	9.99939	30	30	8.74567	38	8.74634	38	1.25366	9.99933	30
40	8.72280	40	8.72341	39	1.27659	9.99939	20	40	8.74605	37	8.74672	38	1.25328	9.99932	20
50	8.72320	39	8.72380	40	1.27620	9.99939	10	50	8.74642	38	8.74710	38	1.25290	9.99932	10
2	8.72359	40	8.72420	40	1.27580	9.99939	58	12	8.74680	38	8.74748	38	1.25252	9.99932	48
10	8.72399	40	8.72460	40	1.27540	9.99939	50	10	8.74718	37	8.74786	37	1.25214	9.99932	50
20	8.72439	39	8.72500	40	1.27500	9.99939	40	20	8.74755	38	8.74823	38	1.25177	9.99932	40
30	8.72478	40	8.72540	39	1.27460	9.99939	30	30	8.74793	38	8.74861	38	1.25139	9.99932	30
40	8.72518	40	8.72579	40	1.27421	9.99939	20	40	8.74831	37	8.74899	37	1.25101	9.99932	20
50	8.72558	39	8.72619	40	1.27381	9.99939	10	50	8.74868	38	8.74936	38	1.25064	9.99932	10
3	8.72597	40	8.72659	39	1.27341	9.99938	57	13	8.74906	37	8.74974	38	1.25026	9.99932	47
10	8.72637	39	8.72698	40	1.27302	9.99938	50	10	8.74943	37	8.75012	37	1.24988	9.99931	50
20	8.72676	40	8.72738	39	1.27262	9.99938	40	20	8.74980	38	8.75049	38	1.24951	9.99931	40
30	8.72716	39	8.72777	40	1.27223	9.99938	30	30	8.75018	37	8.75087	37	1.24913	9.99931	30
40	8.72755	39	8.72817	39	1.27183	9.99938	20	40	8.75055	37	8.75124	38	1.24876	9.99931	20
50	8.72794	40	8.72856	40	1.27144	9.99938	10	50	8.75092	38	8.75162	37	1.24838	9.99931	10
4	8.72834	39	8.72896	39	1.27104	9.99938	56	14	8.75130	37	8.75199	37	1.24801	9.99931	46
10	8.72873	39	8.72935	40	1.27065	9.99938	50	10	8.75167	37	8.75236	38	1.24764	9.99931	50
20	8.72912	39	8.72975	39	1.27025	9.99938	40	20	8.75204	37	8.75274	37	1.24726	9.99931	40
30	8.72951	40	8.73014	39	1.26986	9.99937	30	30	8.75241	38	8.75311	37	1.24689	9.99930	30
40	8.72991	39	8.73053	40	1.26947	9.99937	20	40	8.75279	37	8.75348	37	1.24652	9.99930	20
50	8.73030	39	8.73093	39	1.26907	9.99937	10	50	8.75316	37	8.75385	38	1.24615	9.99930	10
5	8.73069	39	8.73132	39	1.26868	9.99937	55	15	8.75353	37	8.75423	37	1.24577	9.99930	45
10	8.73108	39	8.73171	39	1.26829	9.99937	50	10	8.75390	37	8.75460	37	1.24540	9.99930	50
20	8.73147	39	8.73210	39	1.26790	9.99937	40	20	8.75427	37	8.75497	37	1.24503	9.99930	40
30	8.73186	39	8.73249	39	1.26751	9.99937	30	30	8.75464	37	8.75534	37	1.24466	9.99930	30
40	8.73225	39	8.73288	39	1.26712	9.99937	20	40	8.75501	37	8.75571	37	1.24429	9.99930	20
50	8.73264	39	8.73327	39	1.26673	9.99937	10	50	8.75538	37	8.75608	37	1.24392	9.99929	10
6	8.73303	39	8.73366	39	1.26634	9.99936	54	16	8.75575	37	8.75645	37	1.24355	9.99929	44
10	8.73342	38	8.73405	39	1.26595	9.99936	50	10	8.75612	36	8.75682	37	1.24318	9.99929	50
20	8.73380	39	8.73444	39	1.26556	9.99936	40	20	8.75648	37	8.75719	37	1.24281	9.99929	40
30	8.73419	39	8.73483	39	1.26517	9.99936	30	30	8.75685	37	8.75756	37	1.24244	9.99929	30
40	8.73458	39	8.73522	39	1.26478	9.99936	20	40	8.75722	37	8.75793	37	1.24207	9.99929	20
50	8.73497	38	8.73561	39	1.26439	9.99936	10	50	8.75759	36	8.75830	37	1.24170	9.99929	10
7	8.73535	39	8.73600	38	1.26400	9.99936	53	17	8.75795	37	8.75867	37	1.24133	9.99929	43
10	8.73574	39	8.73638	39	1.26362	9.99936	50	10	8.75832	37	8.75904	36	1.24096	9.99929	50
20	8.73613	38	8.73677	39	1.26323	9.99935	40	20	8.75869	36	8.75940	37	1.24060	9.99928	40
30	8.73651	39	8.73716	38	1.26284	9.99935	30	30	8.75905	37	8.75977	37	1.24023	9.99928	30
40	8.73690	38	8.73754	39	1.26246	9.99935	20	40	8.75942	37	8.76014	37	1.23986	9.99928	20
50	8.73728	39	8.73793	39	1.26207	9.99935	10	50	8.75979	36	8.76051	36	1.23949	9.99928	10
8	8.73767	38	8.73832	38	1.26168	9.99935	52	18	8.76015	37	8.76087	37	1.23913	9.99928	42
10	8.73805	39	8.73870	39	1.26130	9.99935	50	10	8.76052	36	8.76124	36	1.23876	9.99928	50
20	8.73844	38	8.73909	38	1.26091	9.99935	40	20	8.76088	37	8.76160	37	1.23840	9.99928	40
30	8.73882	38	8.73947	39	1.26053	9.99935	30	30	8.76125	36	8.76197	36	1.23803	9.99928	30
40	8.73920	39	8.73986	38	1.26014	9.99935	20	40	8.76161	36	8.76233	37	1.23767	9.99927	20
50	8.73959	38	8.74024	39	1.25976	9.99934	10	50	8.76197	37	8.76270	36	1.23730	9.99927	10
9	8.73997	38	8.74063	38	1.25937	9.99934	51	19	8.76234	36	8.76306	37	1.23694	9.99927	41
10	8.74035	38	8.74101	38	1.25899	9.99934	50	10	8.76270	36	8.76343	36	1.23657	9.99927	50
20	8.74073	39	8.74139	39	1.25861	9.99934	40	20	8.76306	37	8.76379	37	1.23621	9.99927	40
30	8.74112	38	8.74178	38	1.25822	9.99934	30	30	8.76343	36	8.76416	36	1.23584	9.99927	30
40	8.74150	38	8.74216	38	1.25784	9.99934	20	40	8.76379	36	8.76452	36	1.23548	9.99927	20
50	8.74188	38	8.74254	38	1.25746	9.99934	10	50	8.76415	36	8.76488	37	1.23512	9.99927	10
10	8.74226		8.74292		1.25708	9.99934	50	20	8.76451		8.76525		1.23475	9.99926	40
	Cos	d.	Cotg	d.c	Tang	Sin			Cos	d.	Cotg	d.c	Tang	Sin	

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	Sin	d.	Tang	d.c	Cotg	Cos			Sin	d.	Tang	d.c	Cotg	Cos	
20'	8.76451	36	8.76525	36	1.23475	9.99926	40'	30'	8.78568	34	8.78649	34	1.21351	9.99919	30'
10	8.76487	36	8.76561	36	1.23439	9.99926	50	10	8.78602	34	8.78683	34	1.21317	9.99919	50
20	8.76523	36	8.76597	36	1.23403	9.99926	40	20	8.78636	35	8.78718	35	1.21282	9.99919	40
30	8.76559	36	8.76633	36	1.23367	9.99926	30	30	8.78671	34	8.78752	34	1.21248	9.99919	30
40	8.76595	36	8.76669	36	1.23331	9.99926	20	40	8.78705	34	8.78787	35	1.21213	9.99918	20
50	8.76631	36	8.76706	37	1.23294	9.99926	10	50	8.78739	34	8.78821	34	1.21179	9.99918	10
21'	8.76667	36	8.76742	36	1.23258	9.99926	39'	31'	8.78774	34	8.78855	34	1.21145	9.99918	29'
10	8.76703	36	8.76778	36	1.23222	9.99926	50	10	8.78808	34	8.78890	34	1.21110	9.99918	50
20	8.76739	36	8.76814	36	1.23186	9.99925	40	20	8.78842	34	8.78924	34	1.21076	9.99918	40
30	8.76775	36	8.76850	36	1.23150	9.99925	30	30	8.78876	34	8.78958	34	1.21042	9.99918	30
40	8.76811	36	8.76886	36	1.23114	9.99925	20	40	8.78910	35	8.78993	34	1.21007	9.99918	20
50	8.76847	36	8.76922	36	1.23078	9.99925	10	50	8.78945	34	8.79027	34	1.20973	9.99917	10
22'	8.76883	36	8.76958	36	1.23042	9.99925	38'	32'	8.78979	34	8.79061	34	1.20939	9.99917	28'
10	8.76919	35	8.76994	36	1.23006	9.99925	50	10	8.79013	34	8.79096	34	1.20904	9.99917	50
20	8.76954	36	8.77030	35	1.22970	9.99925	40	20	8.79047	34	8.79130	34	1.20870	9.99917	40
30	8.76990	36	8.77065	36	1.22935	9.99925	30	30	8.79081	34	8.79164	34	1.20836	9.99917	30
40	8.77026	35	8.77101	36	1.22899	9.99924	20	40	8.79115	34	8.79198	34	1.20802	9.99917	20
50	8.77061	36	8.77137	36	1.22863	9.99924	10	50	8.79149	34	8.79232	34	1.20768	9.99917	10
23'	8.77097	36	8.77173	35	1.22827	9.99924	37'	33'	8.79183	34	8.79266	34	1.20734	9.99917	27'
10	8.77133	35	8.77208	36	1.22792	9.99924	50	10	8.79217	34	8.79300	34	1.20700	9.99916	50
20	8.77168	36	8.77244	36	1.22756	9.99924	40	20	8.79251	33	8.79334	34	1.20666	9.99916	40
30	8.77204	35	8.77280	35	1.22720	9.99924	30	30	8.79284	34	8.79368	34	1.20632	9.99916	30
40	8.77239	36	8.77315	36	1.22685	9.99924	20	40	8.79318	34	8.79402	34	1.20598	9.99916	20
50	8.77275	35	8.77351	36	1.22649	9.99924	10	50	8.79352	34	8.79436	34	1.20564	9.99916	10
24'	8.77310	36	8.77387	35	1.22613	9.99923	36'	34'	8.79386	34	8.79470	34	1.20530	9.99916	26'
10	8.77346	35	8.77422	36	1.22578	9.99923	50	10	8.79420	33	8.79504	34	1.20496	9.99916	50
20	8.77381	35	8.77458	35	1.22542	9.99923	40	20	8.79453	34	8.79538	34	1.20462	9.99916	40
30	8.77416	36	8.77493	36	1.22507	9.99923	30	30	8.79487	34	8.79572	34	1.20428	9.99915	30
40	8.77452	35	8.77529	35	1.22471	9.99923	20	40	8.79521	34	8.79606	33	1.20394	9.99915	20
50	8.77487	35	8.77564	36	1.22436	9.99923	10	50	8.79555	33	8.79639	34	1.20361	9.99915	10
25'	8.77522	36	8.77600	35	1.22400	9.99923	35'	35'	8.79588	34	8.79673	34	1.20327	9.99915	25'
10	8.77558	35	8.77635	35	1.22365	9.99923	50	10	8.79622	33	8.79707	34	1.20293	9.99915	50
20	8.77593	35	8.77670	36	1.22330	9.99922	40	20	8.79655	34	8.79741	33	1.20259	9.99915	40
30	8.77628	35	8.77706	35	1.22294	9.99922	30	30	8.79689	33	8.79774	34	1.20226	9.99915	30
40	8.77663	35	8.77741	35	1.22259	9.99922	20	40	8.79722	34	8.79808	34	1.20192	9.99914	20
50	8.77698	35	8.77776	35	1.22224	9.99922	10	50	8.79756	33	8.79842	33	1.20158	9.99914	10
26'	8.77733	35	8.77811	36	1.22189	9.99922	34'	36'	8.79789	34	8.79875	34	1.20125	9.99914	24'
10	8.77768	35	8.77847	35	1.22153	9.99922	50	10	8.79823	33	8.79909	33	1.20091	9.99914	50
20	8.77803	35	8.77882	35	1.22118	9.99922	40	20	8.79856	34	8.79942	34	1.20058	9.99914	40
30	8.77838	35	8.77917	35	1.22083	9.99922	30	30	8.79890	33	8.79976	33	1.20024	9.99914	30
40	8.77873	35	8.77952	35	1.22048	9.99921	20	40	8.79923	33	8.80009	34	1.19991	9.99914	20
50	8.77908	35	8.77987	35	1.22013	9.99921	10	50	8.79956	34	8.80043	33	1.19957	9.99914	10
27'	8.77943	35	8.78022	35	1.21978	9.99921	33'	37'	8.79990	33	8.80076	34	1.19924	9.99913	23'
10	8.77978	35	8.78057	35	1.21943	9.99921	50	10	8.80023	33	8.80110	33	1.19890	9.99913	50
20	8.78013	35	8.78092	35	1.21908	9.99921	40	20	8.80056	34	8.80143	34	1.19857	9.99913	40
30	8.78048	35	8.78127	35	1.21873	9.99921	30	30	8.80090	33	8.80177	33	1.19823	9.99913	30
40	8.78083	35	8.78162	35	1.21838	9.99921	20	40	8.80123	33	8.80210	33	1.19790	9.99913	20
50	8.78118	34	8.78197	35	1.21803	9.99921	10	50	8.80156	33	8.80243	34	1.19757	9.99913	10
28'	8.78152	35	8.78232	35	1.21768	9.99920	32'	38'	8.80189	33	8.80277	33	1.19723	9.99913	22'
10	8.78187	35	8.78267	35	1.21733	9.99920	50	10	8.80222	33	8.80310	33	1.19690	9.99912	50
20	8.78222	35	8.78302	35	1.21698	9.99920	40	20	8.80255	34	8.80343	33	1.19657	9.99912	40
30	8.78257	34	8.78337	34	1.21663	9.99920	30	30	8.80289	33	8.80376	33	1.19624	9.99912	30
40	8.78291	35	8.78371	35	1.21629	9.99920	20	40	8.80322	33	8.80409	34	1.19591	9.99912	20
50	8.78326	34	8.78406	35	1.21594	9.99920	10	50	8.80355	33	8.80443	33	1.19557	9.99912	10
29'	8.78360	35	8.78441	34	1.21559	9.99920	31'	39'	8.80388	33	8.80476	33	1.19524	9.99912	21'
10	8.78395	35	8.78475	35	1.21525	9.99920	50	10	8.80421	33	8.80509	33	1.19491	9.99912	50
20	8.78430	34	8.78510	35	1.21490	9.99919	40	20	8.80454	33	8.80542	33	1.19458	9.99912	40
30	8.78464	35	8.78545	34	1.21455	9.99919	30	30	8.80487	32	8.80575	33	1.19425	9.99911	30
40	8.78499	34	8.78579	35	1.21421	9.99919	20	40	8.80519	33	8.80608	33	1.19392	9.99911	20
50	8.78533	35	8.78614	35	1.21386	9.99919	10	50	8.80552	33	8.80641	33	1.19359	9.99911	10
30'	8.78568		8.78649		1.21351	9.99919	30'	40'	8.80585		8.80674		1.19326	9.99911	20'
	Cos	d.	Cotg	d.c	Tang	Sin			Cos	d.	Cotg	d.c	Tang	Sin	

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	Sin	d.	Tang	d.c	Cotg	Cos			Sin	d.	Tang	d.c	Cotg	Cos	
40'	8.80585		8.80674		1.19326	9.99911	20'	50'	8.82513		8.82610		1.17390	9.99903	10'
10	8.80618	33	8.80707	33	1.19293	9.99911	50	10	8.82544	31	8.82642	32	1.17358	9.99903	50
20	8.80651	33	8.80740	33	1.19260	9.99911	40	20	8.82576	31	8.82673	32	1.17327	9.99902	40
30	8.80684	33	8.80773	33	1.19227	9.99911	30	30	8.82607	31	8.82705	32	1.17295	9.99902	30
40	8.80716	33	8.80806	33	1.19194	9.99910	20	40	8.82639	31	8.82736	32	1.17264	9.99902	20
50	8.80749	33	8.80839	33	1.19161	9.99910	10	50	8.82670	31	8.82768	32	1.17232	9.99902	10
41'	8.80782	33	8.80872	33	1.19128	9.99910	19'	51'	8.82701	31	8.82799	32	1.17201	9.99902	9'
10	8.80815	32	8.80905	32	1.19095	9.99910	50	10	8.82732	32	8.82831	31	1.17169	9.99902	50
20	8.80847	33	8.80937	33	1.19063	9.99910	40	20	8.82764	31	8.82862	31	1.17138	9.99902	40
30	8.80880	33	8.80970	33	1.19030	9.99910	30	30	8.82795	31	8.82893	32	1.17107	9.99901	30
40	8.80913	32	8.81003	33	1.18997	9.99910	20	40	8.82826	31	8.82925	31	1.17075	9.99901	20
50	8.80945	33	8.81036	32	1.18964	9.99910	10	50	8.82857	31	8.82956	31	1.17044	9.99901	10
42'	8.80978	32	8.81068	33	1.18932	9.99909	18'	52'	8.82888	32	8.82987	32	1.17013	9.99901	8'
10	8.81010	33	8.81101	33	1.18899	9.99909	50	10	8.82920	31	8.83019	31	1.16981	9.99901	50
20	8.81043	32	8.81134	32	1.18866	9.99909	40	20	8.82951	31	8.83050	31	1.16950	9.99901	40
30	8.81075	33	8.81166	33	1.18834	9.99909	30	30	8.82982	31	8.83081	31	1.16919	9.99901	30
40	8.81108	32	8.81199	33	1.18801	9.99909	20	40	8.83013	31	8.83112	32	1.16888	9.99900	20
50	8.81140	33	8.81232	32	1.18768	9.99909	10	50	8.83044	31	8.83144	31	1.16856	9.99900	10
43'	8.81173	32	8.81264	33	1.18736	9.99909	17'	53'	8.83075	31	8.83175	31	1.16825	9.99900	7'
10	8.81205	32	8.81297	32	1.18703	9.99908	50	10	8.83106	31	8.83206	31	1.16794	9.99900	50
20	8.81237	33	8.81329	33	1.18671	9.99908	40	20	8.83137	31	8.83237	31	1.16763	9.99900	40
30	8.81270	32	8.81362	32	1.18638	9.99908	30	30	8.83168	31	8.83268	31	1.16732	9.99900	30
40	8.81302	32	8.81394	33	1.18606	9.99908	20	40	8.83199	31	8.83299	31	1.16701	9.99900	20
50	8.81334	33	8.81427	32	1.18573	9.99908	10	50	8.83230	31	8.83330	31	1.16670	9.99899	10
44'	8.81367	32	8.81459	32	1.18541	9.99908	16'	54'	8.83261	31	8.83361	31	1.16639	9.99899	6'
10	8.81399	32	8.81491	33	1.18509	9.99908	50	10	8.83292	30	8.83392	31	1.16608	9.99899	50
20	8.81431	32	8.81524	32	1.18476	9.99907	40	20	8.83322	31	8.83423	31	1.16577	9.99899	40
30	8.81463	33	8.81556	32	1.18444	9.99907	30	30	8.83353	31	8.83454	31	1.16546	9.99899	30
40	8.81496	32	8.81588	33	1.18412	9.99907	20	40	8.83384	31	8.83485	31	1.16515	9.99899	20
50	8.81528	32	8.81621	32	1.18379	9.99907	10	50	8.83415	31	8.83516	31	1.16484	9.99899	10
45'	8.81560	32	8.81653	32	1.18347	9.99907	15'	55'	8.83446	30	8.83547	31	1.16453	9.99898	5'
10	8.81592	32	8.81685	32	1.18315	9.99907	50	10	8.83476	31	8.83578	31	1.16422	9.99898	50
20	8.81624	32	8.81717	33	1.18283	9.99907	40	20	8.83507	31	8.83609	31	1.16391	9.99898	40
30	8.81656	32	8.81750	32	1.18250	9.99907	30	30	8.83538	30	8.83640	31	1.16360	9.99898	30
40	8.81688	32	8.81782	32	1.18218	9.99906	20	40	8.83568	31	8.83671	30	1.16329	9.99898	20
50	8.81720	32	8.81814	32	1.18186	9.99906	10	50	8.83599	31	8.83701	31	1.16299	9.99898	10
46'	8.81752	32	8.81846	32	1.18154	9.99906	14'	56'	8.83630	30	8.83732	31	1.16268	9.99898	4'
10	8.81784	32	8.81878	32	1.18122	9.99906	50	10	8.83660	31	8.83763	31	1.16237	9.99897	50
20	8.81816	32	8.81910	32	1.18090	9.99906	40	20	8.83691	30	8.83794	30	1.16206	9.99897	40
30	8.81848	32	8.81942	32	1.18058	9.99906	30	30	8.83721	31	8.83824	31	1.16176	9.99897	30
40	8.81880	32	8.81974	32	1.18026	9.99906	20	40	8.83752	31	8.83855	31	1.16145	9.99897	20
50	8.81912	32	8.82006	32	1.17994	9.99905	10	50	8.83783	30	8.83886	30	1.16114	9.99897	10
47'	8.81944	31	8.82038	32	1.17962	9.99905	13'	57'	8.83813	31	8.83916	31	1.16084	9.99897	3'
10	8.81975	32	8.82070	32	1.17930	9.99905	50	10	8.83844	30	8.83947	31	1.16053	9.99897	50
20	8.82007	32	8.82102	32	1.17898	9.99905	40	20	8.83874	30	8.83978	30	1.16022	9.99896	40
30	8.82039	32	8.82134	32	1.17866	9.99905	30	30	8.83904	31	8.84008	30	1.15992	9.99896	30
40	8.82071	32	8.82166	32	1.17834	9.99905	20	40	8.83935	31	8.84039	31	1.15961	9.99896	20
50	8.82103	31	8.82198	32	1.17802	9.99905	10	50	8.83965	30	8.84069	30	1.15931	9.99896	10
48'	8.82134	32	8.82230	32	1.17770	9.99904	12'	58'	8.83996	30	8.84100	30	1.15900	9.99896	2'
10	8.82166	32	8.82262	31	1.17738	9.99904	50	10	8.84026	30	8.84130	31	1.15870	9.99896	50
20	8.82198	31	8.82293	32	1.17707	9.99904	40	20	8.84056	31	8.84161	30	1.15839	9.99896	40
30	8.82229	32	8.82325	32	1.17675	9.99904	30	30	8.84087	30	8.84191	31	1.15809	9.99895	30
40	8.82261	31	8.82357	32	1.17643	9.99904	20	40	8.84117	30	8.84222	30	1.15778	9.99895	20
50	8.82292	32	8.82389	31	1.17611	9.99904	10	50	8.84147	30	8.84252	30	1.15748	9.99895	10
49'	8.82324	32	8.82420	32	1.17580	9.99904	11'	59'	8.84177	31	8.84282	31	1.15718	9.99895	1'
10	8.82356	31	8.82452	32	1.17548	9.99903	50	10	8.84208	30	8.84313	30	1.15687	9.99895	50
20	8.82387	32	8.82484	31	1.17516	9.99903	40	20	8.84238	30	8.84343	31	1.15657	9.99895	40
30	8.82419	31	8.82515	32	1.17485	9.99903	30	30	8.84268	30	8.84374	30	1.15626	9.99895	30
40	8.82450	32	8.82547	32	1.17453	9.99903	20	40	8.84298	30	8.84404	30	1.15596	9.99894	20
50	8.82482	31	8.82579	31	1.17421	9.99903	10	50	8.84328	30	8.84434	30	1.15566	9.99894	10
50'	8.82513		8.82610		1.17390	9.99903	10'	60'	8.84358		8.84464		1.15536	9.99894	0'
	Cos	d.	Cotg	d.c	Tang	Sin			Cos	d.	Cotg	d.c	Tang	Sin	

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	Sin	d.	Tang	d.c	Cotg	Cos			Sin	d.	Tang	d.c	Cotg	Cos	
0'	8.84358		8.84464		1.15536	9.99894	60'	10'	8.86128		8.86243		1.13757	9.99885	50'
10	8.84389	31	8.84495	31	1.15505	9.99894	50	10	8.86157	29	8.86272	29	1.13728	9.99885	50
20	8.84419	30	8.84525	30	1.15475	9.99894	40	20	8.86186	29	8.86301	29	1.13699	9.99885	40
30	8.84449	30	8.84555	30	1.15445	9.99894	30	30	8.86215	29	8.86330	29	1.13670	9.99885	30
40	8.84479	30	8.84585	30	1.15415	9.99893	20	40	8.86244	29	8.86359	29	1.13641	9.99884	20
50	8.84509	30	8.84615	31	1.15385	9.99893	10	50	8.86273	28	8.86388	29	1.13612	9.99884	10
1'	8.84539	30	8.84646	30	1.15354	9.99893	59'	11'	8.86301	28	8.86417	29	1.13583	9.99884	49'
10	8.84569	30	8.84676	30	1.15324	9.99893	50	10	8.86330	29	8.86446	29	1.13554	9.99884	50
20	8.84599	30	8.84706	30	1.15294	9.99893	40	20	8.86359	29	8.86475	29	1.13525	9.99884	40
30	8.84629	30	8.84736	30	1.15264	9.99893	30	30	8.86388	29	8.86504	29	1.13496	9.99884	30
40	8.84659	29	8.84766	30	1.15234	9.99893	20	40	8.86416	28	8.86533	29	1.13467	9.99884	20
50	8.84688	30	8.84796	30	1.15204	9.99892	10	50	8.86445	29	8.86562	29	1.13438	9.99883	10
2'	8.84718	30	8.84826	30	1.15174	9.99892	58'	12'	8.86474	29	8.86591	28	1.13409	9.99883	48'
10	8.84748	30	8.84856	30	1.15144	9.99892	50	10	8.86502	28	8.86619	29	1.13381	9.99883	50
20	8.84778	30	8.84886	30	1.15114	9.99892	40	20	8.86531	29	8.86648	29	1.13352	9.99883	40
30	8.84808	30	8.84916	30	1.15084	9.99892	30	30	8.86560	29	8.86677	29	1.13323	9.99883	30
40	8.84838	30	8.84946	30	1.15054	9.99892	20	40	8.86588	28	8.86706	29	1.13294	9.99883	20
50	8.84867	30	8.84976	30	1.15024	9.99892	10	50	8.86617	29	8.86734	28	1.13266	9.99882	10
3'	8.84897	30	8.85006	30	1.14994	9.99891	57'	13'	8.86645	28	8.86763	29	1.13237	9.99882	47'
10	8.84927	30	8.85036	29	1.14964	9.99891	50	10	8.86674	29	8.86792	29	1.13208	9.99882	50
20	8.84957	29	8.85065	30	1.14935	9.99891	40	20	8.86703	29	8.86821	28	1.13179	9.99882	40
30	8.84986	30	8.85095	30	1.14905	9.99891	30	30	8.86731	28	8.86849	29	1.13151	9.99882	30
40	8.85016	29	8.85125	30	1.14875	9.99891	20	40	8.86760	29	8.86878	29	1.13122	9.99882	20
50	8.85045	30	8.85155	30	1.14845	9.99891	10	50	8.86788	28	8.86907	29	1.13093	9.99882	10
4'	8.85075	30	8.85185	29	1.14815	9.99891	56'	14'	8.86816	28	8.86935	29	1.13065	9.99881	46'
10	8.85105	29	8.85214	30	1.14786	9.99890	50	10	8.86845	29	8.86964	28	1.13036	9.99881	50
20	8.85134	30	8.85244	30	1.14756	9.99890	40	20	8.86873	28	8.86992	29	1.13008	9.99881	40
30	8.85164	29	8.85274	30	1.14726	9.99890	30	30	8.86902	29	8.87021	28	1.12979	9.99881	30
40	8.85193	30	8.85304	29	1.14696	9.99890	20	40	8.86930	28	8.87049	29	1.12951	9.99881	20
50	8.85223	29	8.85333	30	1.14667	9.99890	10	50	8.86958	28	8.87078	28	1.12922	9.99881	10
5'	8.85252	30	8.85363	29	1.14637	9.99890	55'	15'	8.86987	29	8.87106	29	1.12894	9.99880	45'
10	8.85282	29	8.85392	30	1.14608	9.99889	50	10	8.87015	28	8.87135	28	1.12865	9.99880	50
20	8.85311	30	8.85422	30	1.14578	9.99889	40	20	8.87043	28	8.87163	29	1.12837	9.99880	40
30	8.85341	29	8.85452	29	1.14548	9.99889	30	30	8.87072	29	8.87192	28	1.12808	9.99880	30
40	8.85370	30	8.85481	30	1.14519	9.99889	20	40	8.87100	28	8.87220	29	1.12780	9.99880	20
50	8.85400	29	8.85511	29	1.14489	9.99889	10	50	8.87128	28	8.87249	28	1.12751	9.99880	10
6'	8.85429	29	8.85540	30	1.14460	9.99889	54'	16'	8.87156	28	8.87277	28	1.12723	9.99879	44'
10	8.85458	30	8.85570	29	1.14430	9.99889	50	10	8.87185	29	8.87305	29	1.12695	9.99879	50
20	8.85488	30	8.85599	30	1.14401	9.99888	40	20	8.87213	28	8.87334	28	1.12666	9.99879	40
30	8.85517	29	8.85629	30	1.14371	9.99888	30	30	8.87241	28	8.87362	28	1.12638	9.99879	30
40	8.85546	30	8.85658	30	1.14342	9.99888	20	40	8.87269	28	8.87390	29	1.12610	9.99879	20
50	8.85576	29	8.85688	29	1.14312	9.99888	10	50	8.87297	28	8.87419	28	1.12581	9.99879	10
7'	8.85605	29	8.85717	30	1.14283	9.99888	53'	17'	8.87325	28	8.87447	28	1.12553	9.99879	43'
10	8.85634	29	8.85747	29	1.14253	9.99888	50	10	8.87354	29	8.87475	28	1.12525	9.99878	50
20	8.85663	30	8.85776	29	1.14224	9.99888	40	20	8.87382	28	8.87503	29	1.12497	9.99878	40
30	8.85693	29	8.85805	30	1.14195	9.99887	30	30	8.87410	28	8.87532	28	1.12468	9.99878	30
40	8.85722	29	8.85835	29	1.14165	9.99887	20	40	8.87438	28	8.87560	28	1.12440	9.99878	20
50	8.85751	29	8.85864	29	1.14136	9.99887	10	50	8.87466	28	8.87588	28	1.12412	9.99878	10
8'	8.85780	29	8.85893	29	1.14107	9.99887	52'	18'	8.87494	28	8.87616	28	1.12384	9.99878	42'
10	8.85809	29	8.85922	30	1.14078	9.99887	50	10	8.87522	28	8.87644	29	1.12356	9.99877	50
20	8.85838	29	8.85952	29	1.14048	9.99887	40	20	8.87550	28	8.87673	28	1.12327	9.99877	40
30	8.85867	29	8.85981	29	1.14019	9.99886	30	30	8.87578	28	8.87701	28	1.12299	9.99877	30
40	8.85896	30	8.86010	29	1.13990	9.99886	20	40	8.87606	28	8.87729	28	1.12271	9.99877	20
50	8.85926	29	8.86039	30	1.13961	9.99886	10	50	8.87634	28	8.87757	28	1.12243	9.99877	10
9'	8.85955	29	8.86069	29	1.13931	9.99886	51'	19'	8.87661	27	8.87785	28	1.12215	9.99877	41'
10	8.85984	29	8.86098	29	1.13902	9.99886	50	10	8.87689	28	8.87813	28	1.12187	9.99876	50
20	8.86013	29	8.86127	29	1.13873	9.99886	40	20	8.87717	28	8.87841	28	1.12159	9.99876	40
30	8.86042	28	8.86156	29	1.13844	9.99886	30	30	8.87745	28	8.87869	28	1.12131	9.99876	30
40	8.86070	29	8.86185	29	1.13815	9.99885	20	40	8.87773	28	8.87897	28	1.12103	9.99876	20
50	8.86099	29	8.86214	29	1.13786	9.99885	10	50	8.87801	28	8.87925	28	1.12075	9.99876	10
10'	8.86128		8.86243		1.13757	9.99885	50'	20'	8.87829		8.87953		1.12047	9.99876	40'
	Cos	d.	Cotg	d.c	Tang	Sin			Cos	d.	Cotg	d.c	Tang	Sin	

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	Sin	d.	Tang	d.c	Cotg	Cos			Sin	d.	Tang	d.c	Cotg	Cos	
20'	8.87829	27	8.87953	28	1.12047	9.99876	40'	30'	8.89464	27	8.89598	27	1.10402	9.99866	30'
10	8.87856	27	8.87981	28	1.12019	9.99876	50	10	8.89491	27	8.89625	27	1.10375	9.99866	50
20	8.87884	28	8.88009	28	1.11991	9.99875	40	20	8.89518	27	8.89652	27	1.10348	9.99866	40
30	8.87912	28	8.88037	28	1.11963	9.99875	30	30	8.89545	26	8.89679	27	1.10321	9.99865	30
40	8.87940	27	8.88065	27	1.11935	9.99875	20	40	8.89571	27	8.89706	27	1.10294	9.99865	20
50	8.87967	28	8.88092	28	1.11908	9.99875	10	50	8.89598	27	8.89733	27	1.10267	9.99865	10
21'	8.87995	28	8.88120	28	1.11880	9.99875	39'	31'	8.89625	26	8.89760	26	1.10240	9.99865	29'
10	8.88023	27	8.88148	28	1.11852	9.99875	50	10	8.89651	27	8.89786	27	1.10214	9.99865	50
20	8.88050	28	8.88176	28	1.11824	9.99874	40	20	8.89678	26	8.89813	27	1.10187	9.99865	40
30	8.88078	28	8.88204	27	1.11796	9.99874	30	30	8.89704	27	8.89840	27	1.10160	9.99864	30
40	8.88106	27	8.88231	28	1.11769	9.99874	20	40	8.89731	27	8.89867	27	1.10133	9.99864	20
50	8.88133	28	8.88259	28	1.11741	9.99874	10	50	8.89758	26	8.89894	26	1.10106	9.99864	10
22'	8.88161	27	8.88287	28	1.11713	9.99874	38'	32'	8.89784	27	8.89920	27	1.10080	9.99864	28'
10	8.88188	28	8.88315	27	1.11685	9.99874	50	10	8.89811	26	8.89947	27	1.10053	9.99864	50
20	8.88216	27	8.88342	28	1.11658	9.99873	40	20	8.89837	27	8.89974	26	1.10026	9.99864	40
30	8.88243	28	8.88370	28	1.11630	9.99873	30	30	8.89864	26	8.90000	27	1.10000	9.99863	30
40	8.88271	27	8.88398	27	1.11602	9.99873	20	40	8.89890	27	8.90027	27	1.09973	9.99863	20
50	8.88298	28	8.88425	28	1.11575	9.99873	10	50	8.89917	26	8.90054	26	1.09946	9.99863	10
23'	8.88326	27	8.88453	28	1.11547	9.99873	37'	33'	8.89943	27	8.90080	27	1.09920	9.99863	27'
10	8.88353	28	8.88481	27	1.11519	9.99873	50	10	8.89970	26	8.90107	27	1.09893	9.99863	50
20	8.88381	27	8.88508	28	1.11492	9.99872	40	20	8.89996	27	8.90134	26	1.09866	9.99863	40
30	8.88408	28	8.88536	27	1.11464	9.99872	30	30	8.90023	26	8.90160	27	1.09840	9.99862	30
40	8.88436	27	8.88563	28	1.11437	9.99872	20	40	8.90049	26	8.90187	26	1.09813	9.99862	20
50	8.88463	27	8.88591	27	1.11409	9.99872	10	50	8.90075	27	8.90213	27	1.09787	9.99862	10
24'	8.88490	28	8.88618	28	1.11382	9.99872	36'	34'	8.90102	26	8.90240	26	1.09760	9.99862	26'
10	8.88518	27	8.88646	28	1.11354	9.99872	50	10	8.90128	26	8.90266	27	1.09734	9.99862	50
20	8.88545	27	8.88674	27	1.11326	9.99871	40	20	8.90154	27	8.90293	26	1.09707	9.99862	40
30	8.88572	28	8.88701	27	1.11299	9.99871	30	30	8.90181	26	8.90319	27	1.09681	9.99861	30
40	8.88600	27	8.88728	28	1.11272	9.99871	20	40	8.90207	26	8.90346	26	1.09654	9.99861	20
50	8.88627	27	8.88756	27	1.11244	9.99871	10	50	8.90233	27	8.90372	27	1.09628	9.99861	10
25'	8.88654	27	8.88783	28	1.11217	9.99871	35'	35'	8.90260	26	8.90399	26	1.09601	9.99861	25'
10	8.88681	28	8.88811	27	1.11189	9.99871	50	10	8.90286	26	8.90425	26	1.09575	9.99861	50
20	8.88709	27	8.88838	28	1.11162	9.99871	40	20	8.90312	26	8.90451	27	1.09549	9.99861	40
30	8.88736	27	8.88866	27	1.11134	9.99870	30	30	8.90338	26	8.90478	26	1.09522	9.99860	30
40	8.88763	27	8.88893	27	1.11107	9.99870	20	40	8.90364	27	8.90504	27	1.09496	9.99860	20
50	8.88790	27	8.88920	28	1.11080	9.99870	10	50	8.90391	26	8.90531	26	1.09469	9.99860	10
26'	8.88817	28	8.88948	27	1.11052	9.99870	34'	36'	8.90417	26	8.90557	26	1.09443	9.99860	24'
10	8.88845	27	8.88975	27	1.11025	9.99870	50	10	8.90443	26	8.90583	27	1.09417	9.99860	50
20	8.88872	27	8.89002	27	1.10998	9.99870	40	20	8.90469	26	8.90610	26	1.09390	9.99860	40
30	8.88899	27	8.89029	28	1.10971	9.99869	30	30	8.90495	26	8.90636	26	1.09364	9.99859	30
40	8.88926	27	8.89057	27	1.10943	9.99869	20	40	8.90521	27	8.90662	26	1.09338	9.99859	20
50	8.88953	27	8.89084	27	1.10916	9.99869	10	50	8.90548	26	8.90688	27	1.09312	9.99859	10
27'	8.88980	27	8.89111	27	1.10889	9.99869	33'	37'	8.90574	26	8.90715	26	1.09285	9.99859	23'
10	8.89007	27	8.89138	28	1.10862	9.99869	50	10	8.90600	26	8.90741	26	1.09259	9.99859	50
20	8.89034	27	8.89166	27	1.10834	9.99869	40	20	8.90626	26	8.90767	26	1.09233	9.99859	40
30	8.89061	27	8.89193	27	1.10807	9.99868	30	30	8.90652	26	8.90793	27	1.09207	9.99858	30
40	8.89088	27	8.89220	27	1.10780	9.99868	20	40	8.90678	26	8.90820	26	1.09180	9.99858	20
50	8.89115	27	8.89247	27	1.10753	9.99868	10	50	8.90704	26	8.90846	26	1.09154	9.99858	10
28'	8.89142	27	8.89274	27	1.10726	9.99868	32'	38'	8.90730	26	8.90872	26	1.09128	9.99858	22'
10	8.89169	27	8.89301	27	1.10699	9.99868	50	10	8.90756	26	8.90898	26	1.09102	9.99858	50
20	8.89196	27	8.89328	27	1.10672	9.99868	40	20	8.90782	26	8.90924	26	1.09076	9.99858	40
30	8.89223	27	8.89355	28	1.10645	9.99867	30	30	8.90808	26	8.90950	26	1.09050	9.99857	30
40	8.89250	27	8.89383	27	1.10617	9.99867	20	40	8.90834	25	8.90976	26	1.09024	9.99857	20
50	8.89277	27	8.89410	27	1.10590	9.99867	10	50	8.90859	26	8.91002	27	1.08998	9.99857	10
29'	8.89304	26	8.89437	27	1.10563	9.99867	31'	39'	8.90885	26	8.91029	26	1.08971	9.99857	21'
10	8.89330	27	8.89464	27	1.10536	9.99867	50	10	8.90911	26	8.91055	26	1.08945	9.99857	50
20	8.89357	27	8.89491	27	1.10509	9.99867	40	20	8.90937	26	8.91081	26	1.08919	9.99856	40
30	8.89384	27	8.89518	27	1.10482	9.99866	30	30	8.90963	26	8.91107	26	1.08893	9.99856	30
40	8.89411	27	8.89545	26	1.10455	9.99866	20	40	8.90989	26	8.91133	26	1.08867	9.99856	20
50	8.89438	26	8.89571	27	1.10429	9.99866	10	50	8.91015	25	8.91159	26	1.08841	9.99856	10
30'	8.89464		8.89598		1.10402	9.99866	30'	40'	8.91040		8.91185		1.08815	9.99856	20'
	Cos	d.	Cotg	d.c	Tang	Sin			Cos	d.	Cotg	d.c	Tang	Sin	

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	Sin	d.	Tang	d.c	Cotg	Cos			Sin	d.	Tang	d.c	Cotg	Cos	
40'	8.91040	26	8.91185	26	1.08815	9.99856	20'	50'	8.92561	25	8.92716	25	1.07284	9.99845	10'
10	8.91066	26	8.91211	25	1.08789	9.99856	50	10	8.92586	25	8.92741	25	1.07259	9.99845	50
20	8.91092	26	8.91236	26	1.08764	9.99855	40	20	8.92611	25	8.92766	25	1.07234	9.99845	40
30	8.91118	25	8.91262	26	1.08738	9.99855	30	30	8.92636	24	8.92791	25	1.07209	9.99845	30
40	8.91143	26	8.91288	26	1.08712	9.99855	20	40	8.92660	25	8.92816	25	1.07184	9.99845	20
50	8.91169	26	8.91314	26	1.08686	9.99855	10	50	8.92685	25	8.92841	25	1.07159	9.99844	10
41'	8.91195	26	8.91340	26	1.08660	9.99855	19'	51'	8.92710	25	8.92866	25	1.07134	9.99844	9'
10	8.91221	25	8.91366	26	1.08634	9.99855	50	10	8.92735	25	8.92891	25	1.07109	9.99844	50
20	8.91246	26	8.91392	26	1.08608	9.99854	40	20	8.92760	24	8.92916	25	1.07084	9.99844	40
30	8.91272	26	8.91418	25	1.08582	9.99854	30	30	8.92784	25	8.92941	25	1.07059	9.99844	30
40	8.91298	25	8.91443	26	1.08557	9.99854	20	40	8.92809	25	8.92966	25	1.07034	9.99844	20
50	8.91323	26	8.91469	26	1.08531	9.99854	10	50	8.92834	25	8.92991	25	1.07009	9.99843	10
42'	8.91349	25	8.91495	26	1.08505	9.99854	18'	52'	8.92859	24	8.93016	24	1.06984	9.99843	8'
10	8.91374	26	8.91521	26	1.08479	9.99854	50	10	8.92883	25	8.93040	25	1.06960	9.99843	50
20	8.91400	26	8.91547	25	1.08453	9.99853	40	20	8.92908	25	8.93065	25	1.06935	9.99843	40
30	8.91426	25	8.91572	26	1.08428	9.99853	30	30	8.92933	24	8.93090	25	1.06910	9.99843	30
40	8.91451	26	8.91598	26	1.08402	9.99853	20	40	8.92957	25	8.93115	25	1.06885	9.99842	20
50	8.91477	25	8.91624	26	1.08376	9.99853	10	50	8.92982	25	8.93140	25	1.06860	9.99842	10
43'	8.91502	26	8.91650	25	1.08350	9.99853	17'	53'	8.93007	24	8.93165	25	1.06835	9.99842	7'
10	8.91528	25	8.91675	26	1.08325	9.99853	50	10	8.93031	25	8.93190	24	1.06810	9.99842	50
20	8.91553	26	8.91701	26	1.08299	9.99852	40	20	8.93056	25	8.93214	25	1.06786	9.99842	40
30	8.91579	25	8.91727	25	1.08273	9.99852	30	30	8.93081	24	8.93239	25	1.06761	9.99842	30
40	8.91604	26	8.91752	26	1.08248	9.99852	20	40	8.93105	25	8.93264	25	1.06736	9.99841	20
50	8.91630	25	8.91778	25	1.08222	9.99852	10	50	8.93130	24	8.93289	24	1.06711	9.99841	10
44'	8.91655	25	8.91803	26	1.08197	9.99852	16'	54'	8.93154	25	8.93313	25	1.06687	9.99841	6'
10	8.91680	26	8.91829	26	1.08171	9.99851	50	10	8.93179	24	8.93338	25	1.06662	9.99841	50
20	8.91706	25	8.91855	25	1.08145	9.99851	40	20	8.93203	25	8.93363	25	1.06637	9.99841	40
30	8.91731	26	8.91880	26	1.08120	9.99851	30	30	8.93228	25	8.93388	24	1.06612	9.99840	30
40	8.91757	25	8.91906	25	1.08094	9.99851	20	40	8.93253	24	8.93412	25	1.06588	9.99840	20
50	8.91782	25	8.91931	26	1.08069	9.99851	10	50	8.93277	24	8.93437	25	1.06563	9.99840	10
45'	8.91807	26	8.91957	25	1.08043	9.99851	15'	55'	8.93301	25	8.93462	24	1.06538	9.99840	5'
10	8.91833	25	8.91982	26	1.08018	9.99850	50	10	8.93326	24	8.93486	25	1.06514	9.99840	50
20	8.91858	25	8.92008	25	1.07992	9.99850	40	20	8.93350	25	8.93511	25	1.06489	9.99840	40
30	8.91883	26	8.92033	26	1.07967	9.99850	30	30	8.93375	24	8.93536	24	1.06464	9.99839	30
40	8.91909	25	8.92059	25	1.07941	9.99850	20	40	8.93399	25	8.93560	25	1.06440	9.99839	20
50	8.91934	25	8.92084	26	1.07916	9.99850	10	50	8.93424	24	8.93585	24	1.06415	9.99839	10
46'	8.91959	25	8.92110	25	1.07890	9.99850	14'	56'	8.93448	24	8.93609	25	1.06391	9.99839	4'
10	8.91984	26	8.92135	25	1.07865	9.99849	50	10	8.93472	25	8.93634	24	1.06366	9.99839	50
20	8.92010	25	8.92160	26	1.07840	9.99849	40	20	8.93497	24	8.93658	25	1.06342	9.99838	40
30	8.92035	25	8.92186	25	1.07814	9.99849	30	30	8.93521	25	8.93683	24	1.06317	9.99838	30
40	8.92060	25	8.92211	26	1.07789	9.99849	20	40	8.93546	25	8.93707	25	1.06293	9.99838	20
50	8.92085	25	8.92237	25	1.07763	9.99849	10	50	8.93570	24	8.93732	24	1.06268	9.99838	10
47'	8.92110	25	8.92262	25	1.07738	9.99848	13'	57'	8.93594	25	8.93756	25	1.06244	9.99838	3'
10	8.92135	26	8.92287	26	1.07713	9.99848	50	10	8.93619	24	8.93781	24	1.06219	9.99838	50
20	8.92161	25	8.92313	25	1.07687	9.99848	40	20	8.93643	24	8.93805	25	1.06195	9.99837	40
30	8.92186	25	8.92338	25	1.07662	9.99848	30	30	8.93667	24	8.93830	24	1.06170	9.99837	30
40	8.92211	25	8.92363	25	1.07637	9.99848	20	40	8.93691	25	8.93854	25	1.06146	9.99837	20
50	8.92236	25	8.92388	26	1.07612	9.99848	10	50	8.93716	24	8.93879	24	1.06121	9.99837	10
48'	8.92261	25	8.92414	25	1.07586	9.99847	12'	58'	8.93740	24	8.93903	25	1.06097	9.99837	2'
10	8.92286	25	8.92439	25	1.07561	9.99847	50	10	8.93764	24	8.93928	24	1.06072	9.99836	50
20	8.92311	25	8.92464	25	1.07536	9.99847	40	20	8.93788	24	8.93952	24	1.06048	9.99836	40
30	8.92336	25	8.92489	26	1.07511	9.99847	30	30	8.93812	25	8.93976	25	1.06024	9.99836	30
40	8.92361	25	8.92515	25	1.07485	9.99847	20	40	8.93837	24	8.94001	24	1.05999	9.99836	20
50	8.92386	25	8.92540	25	1.07460	9.99847	10	50	8.93861	24	8.94025	24	1.05975	9.99836	10
49'	8.92411	25	8.92565	25	1.07435	9.99846	11'	59'	8.93885	24	8.94049	25	1.05951	9.99836	1'
10	8.92436	25	8.92590	25	1.07410	9.99846	50	10	8.93909	24	8.94074	24	1.05926	9.99835	50
20	8.92461	25	8.92615	25	1.07385	9.99846	40	20	8.93933	24	8.94098	24	1.05902	9.99835	40
30	8.92486	25	8.92640	25	1.07360	9.99846	30	30	8.93957	24	8.94122	25	1.05878	9.99835	30
40	8.92511	25	8.92665	26	1.07335	9.99846	20	40	8.93981	25	8.94147	24	1.05853	9.99835	20
50	8.92536	25	8.92691	25	1.07309	9.99845	10	50	8.94006	24	8.94171	24	1.05829	9.99835	10
50'	8.92561	25	8.92716	25	1.07284	9.99845	10'	60'	8.94030	24	8.94195	24	1.05805	9.99834	0'
	Cos	d.	Cotg	d.c	Tang	Sin			Cos	d.	Cotg	d.c	Tang	Sin	

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	Sin	d.	Tang	d.c	Cotg	Cos			Sin	d.	Tang	d.c	Cotg	Cos	
0	8.94030		8.94195		1.05805	9.99834	60	10	8.95450		8.95627		1.04373	9.99823	50
10	8.94054	24	8.94219	24	1.05781	9.99834	50	10	8.95473	23	8.95650	23	1.04350	9.99823	50
20	8.94078	24	8.94244	25	1.05756	9.99834	40	20	8.95496	23	8.95674	24	1.04326	9.99823	40
30	8.94102	24	8.94268	24	1.05732	9.99834	30	30	8.95520	23	8.95697	23	1.04303	9.99823	30
40	8.94126	24	8.94292	24	1.05708	9.99834	20	40	8.95543	23	8.95721	23	1.04279	9.99822	20
50	8.94150	24	8.94316	24	1.05684	9.99834	10	50	8.95566	23	8.95744	23	1.04256	9.99822	10
1	8.94174	24	8.94340	24	1.05660	9.99833	59	11	8.95589	24	8.95767	24	1.04233	9.99822	49
10	8.94198	24	8.94365	24	1.05635	9.99833	50	10	8.95613	23	8.95791	23	1.04209	9.99822	50
20	8.94222	24	8.94389	24	1.05611	9.99833	40	20	8.95636	23	8.95814	24	1.04186	9.99822	40
30	8.94246	24	8.94413	24	1.05587	9.99833	30	30	8.95659	23	8.95838	23	1.04162	9.99821	30
40	8.94270	24	8.94437	24	1.05563	9.99833	20	40	8.95682	23	8.95861	23	1.04139	9.99821	20
50	8.94294	24	8.94461	24	1.05539	9.99832	10	50	8.95705	23	8.95884	24	1.04116	9.99821	10
2	8.94317	24	8.94485	24	1.05515	9.99832	58	12	8.95728	24	8.95908	23	1.04092	9.99821	48
10	8.94341	24	8.94509	24	1.05491	9.99832	50	10	8.95752	23	8.95931	23	1.04069	9.99821	50
20	8.94365	24	8.94533	24	1.05467	9.99832	40	20	8.95775	23	8.95954	23	1.04046	9.99821	40
30	8.94389	24	8.94557	24	1.05443	9.99832	30	30	8.95798	23	8.95977	24	1.04023	9.99820	30
40	8.94413	24	8.94581	25	1.05419	9.99831	20	40	8.95821	23	8.96001	23	1.03999	9.99820	20
50	8.94437	24	8.94606	24	1.05394	9.99831	10	50	8.95844	23	8.96024	23	1.03976	9.99820	10
3	8.94461	23	8.94630	24	1.05370	9.99831	57	13	8.95867	23	8.96047	24	1.03953	9.99820	47
10	8.94484	24	8.94654	24	1.05346	9.99831	50	10	8.95890	23	8.96071	23	1.03929	9.99820	50
20	8.94508	24	8.94678	24	1.05322	9.99831	40	20	8.95913	23	8.96094	23	1.03906	9.99819	40
30	8.94532	24	8.94702	23	1.05298	9.99831	30	30	8.95936	23	8.96117	23	1.03883	9.99819	30
40	8.94556	24	8.94725	24	1.05275	9.99830	20	40	8.95959	23	8.96140	23	1.03860	9.99819	20
50	8.94580	23	8.94749	24	1.05251	9.99830	10	50	8.95982	23	8.96163	24	1.03837	9.99819	10
4	8.94603	24	8.94773	24	1.05227	9.99830	56	14	8.96005	23	8.96187	23	1.03813	9.99819	46
10	8.94627	24	8.94797	24	1.05203	9.99830	50	10	8.96028	23	8.96210	23	1.03790	9.99818	50
20	8.94651	24	8.94821	24	1.05179	9.99830	40	20	8.96051	23	8.96233	23	1.03767	9.99818	40
30	8.94675	23	8.94845	24	1.05155	9.99829	30	30	8.96074	23	8.96256	23	1.03744	9.99818	30
40	8.94698	24	8.94869	24	1.05131	9.99829	20	40	8.96097	23	8.96279	23	1.03721	9.99818	20
50	8.94722	24	8.94893	24	1.05107	9.99829	10	50	8.96120	23	8.96302	23	1.03698	9.99818	10
5	8.94746	23	8.94917	24	1.05083	9.99829	55	15	8.96143	23	8.96325	24	1.03675	9.99817	45
10	8.94769	24	8.94941	23	1.05059	9.99829	50	10	8.96166	23	8.96349	23	1.03651	9.99817	50
20	8.94793	24	8.94964	24	1.05036	9.99828	40	20	8.96189	23	8.96372	23	1.03628	9.99817	40
30	8.94817	23	8.94988	24	1.05012	9.99828	30	30	8.96212	22	8.96395	23	1.03605	9.99817	30
40	8.94840	24	8.95012	24	1.04988	9.99828	20	40	8.96234	23	8.96418	23	1.03582	9.99817	20
50	8.94864	23	8.95036	24	1.04964	9.99828	10	50	8.96257	23	8.96441	23	1.03559	9.99816	10
6	8.94887	24	8.95060	23	1.04940	9.99828	54	16	8.96280	23	8.96464	23	1.03536	9.99816	44
10	8.94911	24	8.95083	24	1.04917	9.99828	50	10	8.96303	23	8.96487	23	1.03513	9.99816	50
20	8.94935	23	8.95107	24	1.04893	9.99827	40	20	8.96326	23	8.96510	23	1.03490	9.99816	40
30	8.94958	24	8.95131	24	1.04869	9.99827	30	30	8.96349	22	8.96533	23	1.03467	9.99816	30
40	8.94982	23	8.95155	23	1.04845	9.99827	20	40	8.96371	23	8.96556	23	1.03444	9.99815	20
50	8.95005	24	8.95178	24	1.04822	9.99827	10	50	8.96394	23	8.96579	23	1.03421	9.99815	10
7	8.95029	23	8.95202	24	1.04798	9.99827	53	17	8.96417	23	8.96602	23	1.03398	9.99815	43
10	8.95052	24	8.95226	23	1.04774	9.99826	50	10	8.96440	22	8.96625	23	1.03375	9.99815	50
20	8.95076	23	8.95249	24	1.04751	9.99826	40	20	8.96462	23	8.96648	23	1.03352	9.99815	40
30	8.95099	24	8.95273	24	1.04727	9.99826	30	30	8.96485	23	8.96671	23	1.03329	9.99815	30
40	8.95123	23	8.95297	23	1.04703	9.99826	20	40	8.96508	23	8.96694	23	1.03306	9.99814	20
50	8.95146	24	8.95320	24	1.04680	9.99826	10	50	8.96531	22	8.96717	22	1.03283	9.99814	10
8	8.95170	23	8.95344	24	1.04656	9.99825	52	18	8.96553	23	8.96739	23	1.03261	9.99814	42
10	8.95193	23	8.95368	23	1.04632	9.99825	50	10	8.96576	23	8.96762	23	1.03238	9.99814	50
20	8.95216	24	8.95391	24	1.04609	9.99825	40	20	8.96599	22	8.96785	23	1.03215	9.99814	40
30	8.95240	23	8.95415	24	1.04585	9.99825	30	30	8.96621	23	8.96808	23	1.03192	9.99813	30
40	8.95263	24	8.95439	23	1.04561	9.99825	20	40	8.96644	23	8.96831	23	1.03169	9.99813	20
50	8.95287	23	8.95462	24	1.04538	9.99825	10	50	8.96667	22	8.96854	23	1.03146	9.99813	10
9	8.95310	23	8.95486	23	1.04514	9.99824	51	19	8.96689	23	8.96877	22	1.03123	9.99813	41
10	8.95333	24	8.95509	24	1.04491	9.99824	50	10	8.96712	23	8.96899	23	1.03101	9.99813	50
20	8.95357	23	8.95533	23	1.04467	9.99824	40	20	8.96735	22	8.96922	23	1.03078	9.99812	40
30	8.95380	23	8.95556	24	1.04444	9.99824	30	30	8.96757	23	8.96945	23	1.03055	9.99812	30
40	8.95403	24	8.95580	23	1.04420	9.99824	20	40	8.96780	22	8.96968	23	1.03032	9.99812	20
50	8.95427	23	8.95603	24	1.04397	9.99823	10	50	8.96802	23	8.96991	22	1.03009	9.99812	10
10	8.95450		8.95627		1.04373	9.99823	50	20	8.96825		8.97013		1.02987	9.99812	40
	Cos	d.	Cotg	d.c	Tang	Sin			Cos	d.	Cotg	d.c	Tang	Sin	

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	Sin	d.	Tang	d.c	Cotg	Cos			Sin	d.	Tang	d.c	Cotg	Cos	
20	8.96825	22	8.97013	23	1.02987	9.99812	40	30	8.98157	22	8.98358	22	1.01642	9.99800	30
10	8.96847	23	8.97036	23	1.02964	9.99811	50	10	8.98179	22	8.98380	22	1.01620	9.99799	50
20	8.96870	22	8.97059	22	1.02941	9.99811	40	20	8.98201	22	8.98402	22	1.01598	9.99799	40
30	8.96892	23	8.97081	23	1.02919	9.99811	30	30	8.98223	22	8.98424	22	1.01576	9.99799	30
40	8.96915	22	8.97104	23	1.02896	9.99811	20	40	8.98245	21	8.98446	22	1.01554	9.99799	20
50	8.96937	23	8.97127	23	1.02873	9.99811	10	50	8.98266	22	8.98468	22	1.01532	9.99799	10
21	8.96960	22	8.97150	22	1.02850	9.99810	39	31	8.98288	22	8.98490	22	1.01510	9.99798	29
10	8.96982	23	8.97172	23	1.02828	9.99810	50	10	8.98310	22	8.98512	22	1.01488	9.99798	50
20	8.97005	22	8.97195	23	1.02805	9.99810	40	20	8.98332	22	8.98534	22	1.01466	9.99798	40
30	8.97027	23	8.97218	22	1.02782	9.99810	30	30	8.98354	21	8.98556	22	1.01444	9.99798	30
40	8.97050	22	8.97240	23	1.02760	9.99810	20	40	8.98375	22	8.98578	22	1.01422	9.99798	20
50	8.97072	23	8.97263	22	1.02737	9.99809	10	50	8.98397	22	8.98600	22	1.01400	9.99797	10
22	8.97095	22	8.97285	23	1.02715	9.99809	38	32	8.98419	22	8.98622	22	1.01378	9.99797	28
10	8.97117	22	8.97308	23	1.02692	9.99809	50	10	8.98441	21	8.98644	22	1.01356	9.99797	50
20	8.97139	23	8.97331	22	1.02669	9.99809	40	20	8.98462	22	8.98666	21	1.01334	9.99797	40
30	8.97162	22	8.97353	23	1.02647	9.99809	30	30	8.98484	22	8.98687	22	1.01313	9.99797	30
40	8.97184	23	8.97376	22	1.02624	9.99808	20	40	8.98506	21	8.98709	22	1.01291	9.99796	20
50	8.97207	22	8.97398	23	1.02602	9.99808	10	50	8.98527	22	8.98731	22	1.01269	9.99796	10
23	8.97229	22	8.97421	22	1.02579	9.99808	37	33	8.98549	22	8.98753	22	1.01247	9.99796	27
10	8.97251	23	8.97443	23	1.02557	9.99808	50	10	8.98571	21	8.98775	22	1.01225	9.99796	50
20	8.97274	22	8.97466	22	1.02534	9.99808	40	20	8.98592	22	8.98797	22	1.01203	9.99796	40
30	8.97296	22	8.97488	23	1.02512	9.99807	30	30	8.98614	22	8.98819	22	1.01181	9.99795	30
40	8.97318	23	8.97511	22	1.02489	9.99807	20	40	8.98636	21	8.98841	21	1.01159	9.99795	20
50	8.97341	22	8.97533	23	1.02467	9.99807	10	50	8.98657	22	8.98862	22	1.01138	9.99795	10
24	8.97363	22	8.97556	22	1.02444	9.99807	36	34	8.98679	22	8.98884	22	1.01116	9.99795	26
10	8.97385	22	8.97578	23	1.02422	9.99807	50	10	8.98701	21	8.98906	22	1.01094	9.99794	50
20	8.97407	23	8.97601	22	1.02399	9.99806	40	20	8.98722	22	8.98928	22	1.01072	9.99794	40
30	8.97430	22	8.97623	23	1.02377	9.99806	30	30	8.98744	21	8.98950	21	1.01050	9.99794	30
40	8.97452	22	8.97646	22	1.02354	9.99806	20	40	8.98765	22	8.98971	22	1.01029	9.99794	20
50	8.97474	22	8.97668	23	1.02332	9.99806	10	50	8.98787	21	8.98993	22	1.01007	9.99794	10
25	8.97496	22	8.97691	22	1.02309	9.99806	35	35	8.98808	22	8.99015	22	1.00985	9.99793	25
10	8.97518	23	8.97713	22	1.02287	9.99805	50	10	8.98830	21	8.99037	21	1.00963	9.99793	50
20	8.97541	22	8.97735	23	1.02265	9.99805	40	20	8.98851	22	8.99058	22	1.00942	9.99793	40
30	8.97563	22	8.97758	22	1.02242	9.99805	30	30	8.98873	21	8.99080	22	1.00920	9.99793	30
40	8.97585	22	8.97780	22	1.02220	9.99805	20	40	8.98894	22	8.99102	21	1.00898	9.99793	20
50	8.97607	22	8.97802	23	1.02198	9.99805	10	50	8.98916	21	8.99123	22	1.00877	9.99792	10
26	8.97629	22	8.97825	22	1.02175	9.99804	34	36	8.98937	22	8.99145	22	1.00855	9.99792	24
10	8.97651	23	8.97847	22	1.02153	9.99804	50	10	8.98959	21	8.99167	21	1.00833	9.99792	50
20	8.97674	22	8.97869	23	1.02131	9.99804	40	20	8.98980	22	8.99188	22	1.00812	9.99792	40
30	8.97696	22	8.97892	22	1.02108	9.99804	30	30	8.99002	21	8.99210	22	1.00790	9.99792	30
40	8.97718	22	8.97914	22	1.02086	9.99804	20	40	8.99023	22	8.99232	21	1.00768	9.99791	20
50	8.97740	22	8.97936	23	1.02064	9.99803	10	50	8.99045	21	8.99253	22	1.00747	9.99791	10
27	8.97762	22	8.97959	22	1.02041	9.99803	33	37	8.99066	21	8.99275	22	1.00725	9.99791	23
10	8.97784	22	8.97981	22	1.02019	9.99803	50	10	8.99087	22	8.99297	21	1.00703	9.99791	50
20	8.97806	22	8.98003	22	1.01997	9.99803	40	20	8.99109	21	8.99318	22	1.00682	9.99791	40
30	8.97828	22	8.98025	23	1.01975	9.99803	30	30	8.99130	22	8.99340	21	1.00660	9.99790	30
40	8.97850	22	8.98048	22	1.01952	9.99802	20	40	8.99152	21	8.99361	22	1.00639	9.99790	20
50	8.97872	22	8.98070	22	1.01930	9.99802	10	50	8.99173	21	8.99383	22	1.00617	9.99790	10
28	8.97894	22	8.98092	22	1.01908	9.99802	32	38	8.99194	22	8.99405	21	1.00595	9.99790	22
10	8.97916	22	8.98114	22	1.01886	9.99802	50	10	8.99216	21	8.99426	22	1.00574	9.99790	50
20	8.97938	22	8.98136	23	1.01864	9.99802	40	20	8.99237	21	8.99448	21	1.00552	9.99789	40
30	8.97960	22	8.98159	22	1.01841	9.99801	30	30	8.99258	22	8.99469	22	1.00531	9.99789	30
40	8.97982	22	8.98181	22	1.01819	9.99801	20	40	8.99280	21	8.99491	21	1.00509	9.99789	20
50	8.98004	22	8.98203	22	1.01797	9.99801	10	50	8.99301	21	8.99512	21	1.00488	9.99789	10
29	8.98026	22	8.98225	22	1.01775	9.99801	31	39	8.99322	21	8.99534	21	1.00466	9.99788	21
10	8.98048	22	8.98247	22	1.01753	9.99801	50	10	8.99343	22	8.99555	22	1.00445	9.99788	50
20	8.98070	22	8.98269	22	1.01731	9.99800	40	20	8.99365	21	8.99577	21	1.00423	9.99788	40
30	8.98092	22	8.98291	23	1.01709	9.99800	30	30	8.99386	21	8.99598	22	1.00402	9.99788	30
40	8.98114	21	8.98314	22	1.01686	9.99800	20	40	8.99407	21	8.99620	21	1.00380	9.99788	20
50	8.98135	22	8.98336	22	1.01664	9.99800	10	50	8.99428	22	8.99641	21	1.00359	9.99787	10
30	8.98157	22	8.98358	22	1.01642	9.99800	30	40	8.99450	22	8.99662	21	1.00338	9.99787	20
	Cos	d.	Cotg	d.c	Tang	Sin			Cos	d.	Cotg	d.c	Tang	Sin	

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	Sin	d.	Tang	d.c	Cotg	Cos			Sin	d.	Tang	d.c	Cotg	Cos	
40	8.99450	21	8.99662	22	1.00338	9.99787	20	50	9.00704	21	9.00930	21	0.99070	9.99775	10
10	8.99471	21	8.99684	22	1.00316	9.99787	50	10	9.00725	21	9.00951	21	0.99049	9.99774	50
20	8.99492	21	8.99705	21	1.00295	9.99787	40	20	9.00746	21	9.00971	20	0.99029	9.99774	40
30	8.99513	21	8.99727	21	1.00273	9.99787	30	30	9.00766	21	9.00992	21	0.99008	9.99774	30
40	8.99534	22	8.99748	21	1.00252	9.99786	20	40	9.00787	21	9.01013	21	0.98987	9.99774	20
50	8.99556	21	8.99769	22	1.00231	9.99786	10	50	9.00807	21	9.01034	21	0.98966	9.99773	10
41	8.99577	21	8.99791	21	1.00209	9.99786	19	51	9.00828	20	9.01055	20	0.98945	9.99773	9
10	8.99598	21	8.99812	22	1.00188	9.99786	50	10	9.00848	21	9.01075	21	0.98925	9.99773	50
20	8.99619	21	8.99834	21	1.00166	9.99786	40	20	9.00869	20	9.01096	21	0.98904	9.99773	40
30	8.99640	21	8.99855	21	1.00145	9.99785	30	30	9.00889	21	9.01117	21	0.98883	9.99773	30
40	8.99661	21	8.99876	22	1.00124	9.99785	20	40	9.00910	20	9.01138	20	0.98862	9.99772	20
50	8.99682	22	8.99898	21	1.00102	9.99785	10	50	9.00930	21	9.01158	21	0.98842	9.99772	10
42	8.99704	21	8.99919	21	1.00081	9.99785	18	52	9.00951	20	9.01179	21	0.98821	9.99772	8
10	8.99725	21	8.99940	21	1.00060	9.99785	50	10	9.00971	21	9.01200	20	0.98800	9.99772	50
20	8.99746	21	8.99961	22	1.00039	9.99784	40	20	9.00992	20	9.01220	21	0.98780	9.99772	40
30	8.99767	21	8.99983	21	1.00017	9.99784	30	30	9.01012	21	9.01241	21	0.98759	9.99771	30
40	8.99788	21	9.00004	21	0.99996	9.99784	20	40	9.01033	20	9.01262	20	0.98738	9.99771	20
50	8.99809	21	9.00025	21	0.99975	9.99784	10	50	9.01053	21	9.01282	21	0.98718	9.99771	10
43	8.99830	21	9.00046	22	0.99954	9.99783	17	53	9.01074	20	9.01303	21	0.98697	9.99771	7
10	8.99851	21	9.00068	21	0.99932	9.99783	50	10	9.01094	21	9.01324	20	0.98676	9.99770	50
20	8.99872	21	9.00089	21	0.99911	9.99783	40	20	9.01115	20	9.01344	21	0.98656	9.99770	40
30	8.99893	21	9.00110	21	0.99890	9.99783	30	30	9.01135	20	9.01365	21	0.98635	9.99770	30
40	8.99914	21	9.00131	22	0.99869	9.99783	20	40	9.01155	21	9.01386	20	0.98614	9.99770	20
50	8.99935	21	9.00153	21	0.99847	9.99782	10	50	9.01176	20	9.01406	21	0.98594	9.99770	10
44	8.99956	21	9.00174	21	0.99826	9.99782	16	54	9.01196	21	9.01427	20	0.98573	9.99769	6
10	8.99977	21	9.00195	21	0.99805	9.99782	50	10	9.01217	20	9.01447	21	0.98553	9.99769	50
20	8.99998	21	9.00216	21	0.99784	9.99782	40	20	9.01237	20	9.01468	21	0.98532	9.99769	40
30	9.00019	21	9.00237	21	0.99763	9.99782	30	30	9.01257	21	9.01489	20	0.98511	9.99769	30
40	9.00040	21	9.00258	22	0.99742	9.99781	20	40	9.01278	20	9.01509	21	0.98491	9.99768	20
50	9.00061	21	9.00280	21	0.99720	9.99781	10	50	9.01298	20	9.01530	20	0.98470	9.99768	10
45	9.00082	21	9.00301	21	0.99699	9.99781	15	55	9.01318	21	9.01550	20	0.98450	9.99768	5
10	9.00103	20	9.00322	21	0.99678	9.99781	50	10	9.01339	20	9.01571	21	0.98429	9.99768	50
20	9.00123	21	9.00343	21	0.99657	9.99781	40	20	9.01359	20	9.01591	20	0.98409	9.99768	40
30	9.00144	21	9.00364	21	0.99636	9.99780	30	30	9.01379	20	9.01612	21	0.98388	9.99767	30
40	9.00165	21	9.00385	21	0.99615	9.99780	20	40	9.01399	21	9.01632	21	0.98368	9.99767	20
50	9.00186	21	9.00406	21	0.99594	9.99780	10	50	9.01420	20	9.01653	20	0.98347	9.99767	10
46	9.00207	21	9.00427	21	0.99573	9.99780	14	56	9.01440	20	9.01673	21	0.98327	9.99767	4
10	9.00228	21	9.00448	21	0.99552	9.99779	50	10	9.01460	20	9.01694	20	0.98306	9.99766	50
20	9.00249	20	9.00469	21	0.99531	9.99779	40	20	9.01480	21	9.01714	20	0.98286	9.99766	40
30	9.00269	21	9.00490	21	0.99510	9.99779	30	30	9.01501	20	9.01735	21	0.98265	9.99766	30
40	9.00290	21	9.00511	21	0.99489	9.99779	20	40	9.01521	20	9.01755	21	0.98245	9.99766	20
50	9.00311	21	9.00532	21	0.99468	9.99779	10	50	9.01541	20	9.01776	21	0.98224	9.99766	10
47	9.00332	21	9.00553	21	0.99447	9.99778	13	57	9.01561	21	9.01796	20	0.98204	9.99765	3
10	9.00353	20	9.00574	21	0.99426	9.99778	50	10	9.01582	20	9.01816	21	0.98184	9.99765	50
20	9.00373	21	9.00595	21	0.99405	9.99778	40	20	9.01602	20	9.01837	21	0.98163	9.99765	40
30	9.00394	21	9.00616	21	0.99384	9.99778	30	30	9.01622	20	9.01857	20	0.98143	9.99765	30
40	9.00415	21	9.00637	21	0.99363	9.99778	20	40	9.01642	20	9.01878	21	0.98122	9.99765	20
50	9.00436	20	9.00658	21	0.99342	9.99777	10	50	9.01662	20	9.01898	20	0.98102	9.99764	10
48	9.00456	21	9.00679	21	0.99321	9.99777	12	58	9.01682	21	9.01918	21	0.98082	9.99764	2
10	9.00477	21	9.00700	21	0.99300	9.99777	50	10	9.01703	20	9.01939	20	0.98061	9.99764	50
20	9.00498	20	9.00721	21	0.99279	9.99777	40	20	9.01723	20	9.01959	20	0.98041	9.99764	40
30	9.00518	21	9.00742	21	0.99258	9.99776	30	30	9.01743	20	9.01979	21	0.98021	9.99763	30
40	9.00539	21	9.00763	21	0.99237	9.99776	20	40	9.01763	20	9.02000	21	0.98000	9.99763	20
50	9.00560	21	9.00784	21	0.99216	9.99776	10	50	9.01783	20	9.02020	20	0.97980	9.99763	10
49	9.00581	20	9.00805	21	0.99195	9.99776	11	59	9.01803	20	9.02040	20	0.97960	9.99763	1
10	9.00601	21	9.00826	20	0.99174	9.99776	50	10	9.01823	20	9.02061	21	0.97939	9.99763	50
20	9.00622	20	9.00846	21	0.99154	9.99775	40	20	9.01843	20	9.02081	20	0.97919	9.99762	40
30	9.00642	21	9.00867	21	0.99133	9.99775	30	30	9.01863	20	9.02101	20	0.97899	9.99762	30
40	9.00663	21	9.00888	21	0.99112	9.99775	20	40	9.01883	20	9.02121	21	0.97879	9.99762	20
50	9.00684	20	9.00909	21	0.99091	9.99775	10	50	9.01903	20	9.02142	20	0.97858	9.99762	10
50	9.00704	20	9.00930	20	0.99070	9.99775	10	60	9.01923	20	9.02162	20	0.97838	9.99761	0
	Cos	d.	Cotg	d.c	Tang	Sin			Cos	d.	Cotg	d.c	Tang	Sin	

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	Sin	d.	Tang	d.c	Cotg	Cos		P. P.																
0	9.01923		9.02162		0.97838	0.99761	60	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1	9.02043	120	9.02283	121	0.97717	0.99760	59	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3
2	9.02163	120	9.02404	121	0.97596	0.99759	58	3	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5
3	9.02283	119	9.02525	120	0.97475	0.99757	57	4	8	8	8	8	8	8	8	8	8	7	7	7	7	7	7	7
4	9.02402	118	9.02645	121	0.97355	0.99756	56	5	10	10	10	10	10	10	10	10	9	9	9	9	9	9	9	9
5	9.02520	119	9.02766	119	0.97234	0.99755	55	6	12	12	12	12	12	12	11	11	11	11	11	11	11	11	11	10
6	9.02639	118	9.02885	120	0.97115	0.99753	54	7	14	14	14	14	14	14	13	13	13	13	13	13	13	13	13	12
7	9.02757	117	9.03005	119	0.96995	0.99752	53	8	16	16	16	16	16	16	15	15	15	15	15	15	15	15	15	14
8	9.02874	118	9.03124	118	0.96876	0.99751	52	9	18	18	18	18	18	18	17	17	17	17	17	17	16	16	16	16
9	9.02992	117	9.03242	119	0.96758	0.99749	51	10	20	20	20	20	20	20	19	19	19	19	19	18	18	18	18	18
10	9.03109	117	9.03361	118	0.96639	0.99748	50	11	22	22	22	22	22	22	21	21	21	21	21	20	20	20	20	20
11	9.03226	116	9.03479	118	0.96521	0.99747	49	12	24	24	24	24	24	24	23	23	23	23	22	22	22	22	22	21
12	9.03342	116	9.03597	117	0.96403	0.99745	48	13	26	26	26	26	26	26	25	25	25	25	24	24	24	24	24	23
13	9.03458	116	9.03714	118	0.96286	0.99744	47	14	28	28	28	28	28	28	27	27	27	27	26	26	26	26	26	25
14	9.03574	116	9.03832	116	0.96168	0.99742	46	15	30	30	30	30	30	30	29	29	29	29	28	28	28	28	28	27
15	9.03690	115	9.03948	117	0.96052	0.99741	45	16	32	32	32	32	32	32	31	31	31	31	30	30	30	30	30	29
16	9.03805	115	9.04065	116	0.95935	0.99740	44	17	34	34	34	34	34	34	33	33	33	33	32	32	32	32	32	31
17	9.03920	114	9.04181	116	0.95819	0.99738	43	18	36	36	36	36	36	36	35	35	35	35	34	34	34	34	34	33
18	9.04034	115	9.04297	116	0.95703	0.99737	42	19	38	38	38	38	38	38	37	37	37	37	36	36	36	36	36	35
19	9.04149	113	9.04413	115	0.95587	0.99736	41	20	40	40	40	40	40	40	39	39	39	39	38	38	38	38	38	37
20	9.04262	114	9.04528	115	0.95472	0.99734	40	21	42	42	42	42	42	42	41	41	41	41	40	40	40	40	40	39
21	9.04376	114	9.04613	115	0.95357	0.99733	39	22	44	44	44	44	44	44	43	43	43	43	42	42	42	42	42	41
22	9.04490	113	9.04758	115	0.95242	0.99731	38	23	46	46	46	46	46	46	45	45	45	45	44	44	44	44	44	43
23	9.04603	112	9.04873	114	0.95127	0.99730	37	24	48	48	48	48	48	48	47	47	47	47	46	46	46	46	46	45
24	9.04715	113	9.04987	114	0.95013	0.99728	36	25	50	50	50	50	50	50	49	49	49	49	48	48	48	48	48	47
25	9.04828	112	9.05101	113	0.94899	0.99727	35	26	52	52	52	52	52	52	51	51	51	51	50	50	50	50	50	49
26	9.04940	112	9.05214	114	0.94786	0.99726	34	27	54	54	54	54	54	54	53	53	53	53	52	52	52	52	52	51
27	9.05052	112	9.05328	113	0.94672	0.99724	33	28 <td>56</td> <td>56</td> <td>56</td> <td>56</td> <td>56</td> <td>56</td> <td>55</td> <td>55</td> <td>55</td> <td>55</td> <td>54</td> <td>54</td> <td>54</td> <td>54</td> <td>54</td> <td>53</td>	56	56	56	56	56	56	55	55	55	55	54	54	54	54	54	53
28	9.05164	111	9.05441	112	0.94559	0.99723	32	29 <td>58</td> <td>58</td> <td>58</td> <td>58</td> <td>58</td> <td>58</td> <td>57</td> <td>57</td> <td>57</td> <td>57</td> <td>56</td> <td>56</td> <td>56</td> <td>56</td> <td>56</td> <td>55</td>	58	58	58	58	58	58	57	57	57	57	56	56	56	56	56	55
29	9.05275	111	9.05553	113	0.94447	0.99721	31	30 <td>60</td> <td>60</td> <td>60</td> <td>60</td> <td>60</td> <td>60</td> <td>59</td> <td>59</td> <td>59</td> <td>59</td> <td>58</td> <td>58</td> <td>58</td> <td>58</td> <td>58</td> <td>57</td>	60	60	60	60	60	60	59	59	59	59	58	58	58	58	58	57
30	9.05386	111	9.05666	112	0.94334	0.99720	30	31 <td>62</td> <td>62</td> <td>62</td> <td>62</td> <td>62</td> <td>62</td> <td>61</td> <td>61</td> <td>61</td> <td>61</td> <td>60</td> <td>60</td> <td>60</td> <td>60</td> <td>60</td> <td>59</td>	62	62	62	62	62	62	61	61	61	61	60	60	60	60	60	59
31	9.05497	110	9.05778	112	0.94222	0.99718	29	32 <td>64</td> <td>64</td> <td>64</td> <td>64</td> <td>64</td> <td>64</td> <td>63</td> <td>63</td> <td>63</td> <td>63</td> <td>62</td> <td>62</td> <td>62</td> <td>62</td> <td>62</td> <td>61</td>	64	64	64	64	64	64	63	63	63	63	62	62	62	62	62	61
32	9.05607	110	9.05890	112	0.94110	0.99717	28	33 <td>66</td> <td>66</td> <td>66</td> <td>66</td> <td>66</td> <td>66</td> <td>65</td> <td>65</td> <td>65</td> <td>65</td> <td>64</td> <td>64</td> <td>64</td> <td>64</td> <td>64</td> <td>63</td>	66	66	66	66	66	66	65	65	65	65	64	64	64	64	64	63
33	9.05717	110	9.06002	111	0.93998	0.99716	27	34 <td>68</td> <td>68</td> <td>68</td> <td>68</td> <td>68</td> <td>68</td> <td>67</td> <td>67</td> <td>67</td> <td>67</td> <td>66</td> <td>66</td> <td>66</td> <td>66</td> <td>66</td> <td>65</td>	68	68	68	68	68	68	67	67	67	67	66	66	66	66	66	65
34	9.05827	110	9.06113	111	0.93887	0.99714	26	35 <td>70</td> <td>70</td> <td>70</td> <td>70</td> <td>70</td> <td>70</td> <td>69</td> <td>69</td> <td>69</td> <td>69</td> <td>68</td> <td>68</td> <td>68</td> <td>68</td> <td>68</td> <td>67</td>	70	70	70	70	70	70	69	69	69	69	68	68	68	68	68	67
35	9.05937	109	9.06224	111	0.93776	0.99713	25	36 <td>72</td> <td>72</td> <td>72</td> <td>72</td> <td>72</td> <td>72</td> <td>71</td> <td>71</td> <td>71</td> <td>71</td> <td>70</td> <td>70</td> <td>70</td> <td>70</td> <td>70</td> <td>69</td>	72	72	72	72	72	72	71	71	71	71	70	70	70	70	70	69
36	9.06046	109	9.06335	110	0.93665	0.99711	24	37 <td>74</td> <td>74</td> <td>74</td> <td>74</td> <td>74</td> <td>74</td> <td>73</td> <td>73</td> <td>73</td> <td>73</td> <td>72</td> <td>72</td> <td>72</td> <td>72</td> <td>72</td> <td>71</td>	74	74	74	74	74	74	73	73	73	73	72	72	72	72	72	71
37	9.06155	109	9.06445	111	0.93555	0.99710	23	38 <td>76</td> <td>76</td> <td>76</td> <td>76</td> <td>76</td> <td>76</td> <td>75</td> <td>75</td> <td>75</td> <td>75</td> <td>74</td> <td>74</td> <td>74</td> <td>74</td> <td>74</td> <td>73</td>	76	76	76	76	76	76	75	75	75	75	74	74	74	74	74	73
38	9.06264	108	9.06556	110	0.93444	0.99708	22	39 <td>78</td> <td>78</td> <td>78</td> <td>78</td> <td>78</td> <td>78</td> <td>77</td> <td>77</td> <td>77</td> <td>77</td> <td>76</td> <td>76</td> <td>76</td> <td>76</td> <td>76</td> <td>75</td>	78	78	78	78	78	78	77	77	77	77	76	76	76	76	76	75
39	9.06372	109	9.06666	109	0.93334	0.99707	21	40 <td>80</td> <td>80</td> <td>80</td> <td>80</td> <td>80</td> <td>80</td> <td>79</td> <td>79</td> <td>79</td> <td>79</td> <td>78</td> <td>78</td> <td>78</td> <td>78</td> <td>78</td> <td>77</td>	80	80	80	80	80	80	79	79	79	79	78	78	78	78	78	77
40	9.06481	108	9.06775	110	0.93225	0.99705	20	41 <td>82</td> <td>82</td> <td>82</td> <td>82</td> <td>82</td> <td>82</td> <td>81</td> <td>81</td> <td>81</td> <td>81</td> <td>80</td> <td>80</td> <td>80</td> <td>80</td> <td>80</td> <td>79</td>	82	82	82	82	82	82	81	81	81	81	80	80	80	80	80	79
41	9.06589	107	9.06885	109	0.93115	0.99704	19	42 <td>84</td> <td>84</td> <td>84</td> <td>84</td> <td>84</td> <td>84</td> <td>83</td> <td>83</td> <td>83</td> <td>83</td> <td>82</td> <td>82</td> <td>82</td> <td>82</td> <td>82</td> <td>81</td>	84	84	84	84	84	84	83	83	83	83	82	82	82	82	82	81
42	9.06696	108	9.06994	109	0.93006	0.99702	18	43 <td>86</td> <td>86</td> <td>86</td> <td>86</td> <td>86</td> <td>86</td> <td>85</td> <td>85</td> <td>85</td> <td>85</td> <td>84</td> <td>84</td> <td>84</td> <td>84</td> <td>84</td> <td>83</td>	86	86	86	86	86	86	85	85	85	85	84	84	84	84	84	83
43	9.06804	107	9.07103	108	0.92897	0.99701	17	44 <td>88</td> <td>88</td> <td>88</td> <td>88</td> <td>88</td> <td>88</td> <td>87</td> <td>87</td> <td>87</td> <td>87</td> <td>86</td> <td>86</td> <td>86</td> <td>86</td> <td>86</td> <td>85</td>	88	88	88	88	88	88	87	87	87	87	86	86	86	86	86	85
44	9.06911	107	9.07211	109	0.92789	0.99699	16	45 <td>90</td> <td>90</td> <td>90</td> <td>90</td> <td>90</td> <td>90</td> <td>89</td> <td>89</td> <td>89</td> <td>89</td> <td>88</td> <td>88</td> <td>88</td> <td>88</td> <td>88</td> <td>87</td>	90	90	90	90	90	90	89	89	89	89	88	88	88	88	88	87
45	9.07018	106	9.07320	108	0.92680	0.99698	15	46 <td>92</td> <td>92</td> <td>92</td> <td>92</td> <td>92</td>	92	92	92	92	92											

Hier sind zur Ersparung des Raums die Hunderte von den Prop. Th. weggelassen.

7 GRAD.

	Sin	d.	Tang	d.c	Cotg	Cos		P. P.																	
0	9.08589		9.08914		0.91086	0.99675	60	104	103	102	101	100	99	98	97	96	95	94	93	92	91	90			
1	9.08692	103	9.09019	105	0.90981	0.99674	59	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1			
2	9.08795	103	9.09123	104	0.90877	0.99672	58	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
3	9.08897	102	9.09227	103	0.90773	0.99670	57	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4			
4	9.08999	102	9.09330	104	0.90670	0.99669	56	7	7	7	7	7	7	7	6	6	6	6	6	6	6	6			
5	9.09101	101	9.09434	103	0.90566	0.99667	55	9	9	8	8	8	8	8	8	8	8	8	8	8	8	7			
6	9.09202	102	9.09537	103	0.90463	0.99666	54	10	10	10	10	10	10	10	10	9	9	9	9	9	9	9			
7	9.09304	101	9.09640	102	0.90360	0.99664	53	12	12	12	12	12	12	11	11	11	11	11	11	11	11	10			
8	9.09405	101	9.09742	103	0.90258	0.99663	52	14	14	14	13	13	13	13	13	13	13	13	12	12	12	12			
9	9.09506	100	9.09845	102	0.90155	0.99661	51	16	15	15	15	15	15	15	15	14	14	14	14	14	14	13			
10	9.09606	101	9.09947	102	0.90053	0.99659	50	17	17	17	17	17	16	16	16	16	16	16	15	15	15	15			
11	9.09707	100	9.10049	101	0.89951	0.99658	49	19	19	19	19	18	18	18	18	17	17	17	17	17	17	16			
12	9.09807	100	9.10150	102	0.89850	0.99656	48	21	21	20	20	20	20	20	19	19	19	19	19	18	18	18			
13	9.09907	99	9.10252	101	0.89748	0.99655	47	23	22	22	22	22	21	21	21	21	21	20	20	20	20	19			
14	9.10006	100	9.10353	101	0.89647	0.99653	46	24	24	24	24	23	23	23	23	22	22	22	22	21	21	21			
15	9.10106	99	9.10454	101	0.89546	0.99651	45	26	26	25	25	25	25	24	24	24	24	23	23	23	23	22			
16	9.10205	99	9.10555	101	0.89445	0.99650	44	28	27	27	27	27	26	26	26	26	25	25	25	25	24	24			
17	9.10304	98	9.10656	100	0.89344	0.99648	43	29	29	29	29	28	28	28	27	27	27	27	26	26	26	25			
18	9.10402	99	9.10756	100	0.89244	0.99647	42	31	31	31	30	30	30	29	29	29	28	28	28	28	27	27			
19	9.10501	98	9.10856	100	0.89144	0.99645	41	33	33	32	32	32	31	31	31	30	30	30	29	29	29	28			
20	9.10599	98	9.10956	100	0.89044	0.99643	40	35	34	34	34	33	33	33	32	32	32	31	31	31	30	30			
21	9.10697	98	9.11056	99	0.88944	0.99642	39	36	36	36	35	35	35	34	34	34	33	33	33	32	32	31			
22	9.10795	98	9.11155	99	0.88845	0.99640	38	38	38	37	37	37	36	36	36	35	35	34	34	34	33	33			
23	9.10893	97	9.11254	99	0.88746	0.99638	37	40	39	39	39	38	38	38	37	37	36	36	35	35	34	34			
24	9.10990	97	9.11353	99	0.88647	0.99637	36	42	41	41	40	40	40	39	39	38	38	37	37	36	36	36			
25	9.11087	97	9.11452	99	0.88548	0.99635	35	43	43	42	42	42	41	41	40	40	39	39	38	38	37	37			
26	9.11184	97	9.11551	98	0.88449	0.99633	34	45	45	44	44	43	43	42	42	41	41	40	40	39	39	39			
27	9.11281	96	9.11649	98	0.88351	0.99632	33	47	46	46	45	45	45	44	44	43	43	42	42	41	41	40			
28	9.11377	97	9.11747	98	0.88253	0.99630	32	49	48	48	47	47	46	46	45	45	44	44	43	43	42	42			
29	9.11474	96	9.11845	98	0.88155	0.99629	31	50	50	49	49	48	48	47	47	46	46	45	45	44	44	43			
30	9.11570	96	9.11943	97	0.88057	0.99627	30	52	51	51	50	50	49	49	48	48	47	47	46	46	45	45			
31	9.11666	95	9.12040	98	0.87960	0.99625	29	54	53	53	52	52	51	51	50	50	49	49	48	48	47	46			
32	9.11761	96	9.12138	97	0.87862	0.99624	28	55	55	54	54	53	53	52	52	51	51	50	50	49	49	48			
33	9.11857	95	9.12235	97	0.87765	0.99622	27	57	57	56	56	55	54	54	53	53	52	52	51	51	50	49			
34	9.11952	95	9.12332	96	0.87668	0.99620	26	59	58	58	57	57	56	56	55	54	54	53	53	52	52	51			
35	9.12047	95	9.12428	97	0.87572	0.99618	25	61	60	59	59	58	58	57	57	56	55	55	54	54	53	52			
36	9.12142	94	9.12525	96	0.87475	0.99617	24	62	62	61	61	60	59	59	58	58	57	56	56	55	55	54			
37	9.12236	95	9.12621	96	0.87379	0.99615	23	64	64	63	62	62	61	60	60	59	59	58	57	57	56	55			
38	9.12331	94	9.12717	96	0.87283	0.99613	22	66	65	65	64	63	63	62	61	61	60	60	59	58	58	57			
39	9.12425	94	9.12813	96	0.87187	0.99612	21	68	67	66	66	65	64	64	63	62	62	61	60	60	59	58			
40	9.12519	93	9.12909	95	0.87091	0.99610	20	69	69	68	67	67	66	65	65	64	63	63	62	61	61	60			
41	9.12612	94	9.13004	95	0.86996	0.99608	19	71	70	70	69	68	68	67	66	66	65	64	64	63	62	61			
42	9.12706	93	9.13099	95	0.86901	0.99607	18	73	72	71	71	70	69	69	68	67	66	66	65	64	64	63			
43	9.12799	93	9.13194	95	0.86806	0.99605	17	75	74	73	72	72	71	70	70	69	68	67	67	66	65	64			
44	9.12892	93	9.13289	95	0.86711	0.99603	16	76	76	75	74	73	73	72	71	70	70	69	68	67	67	66			
45	9.12985	93	9.13384	94	0.86616	0.99601	15	78	77	76	76	75	74	73	73	72	71	70	70	69	68	67			
46	9.13078	93	9.13478	95	0.86522	0.99600	14	80	79	78	77	77	76	75	74	74	73	72	71	71	70	69			
47	9.13171	92	9.13573	94	0.86427	0.99598	13	81	81	80	79	78	78	77	76	75	74	74	73	72	71	70			
48	9.13263	92	9.13667	94	0.86333	0.99596	12	83	82	82	81	80	79	78	78	77	76	75							

8 GRAD.

							P. P.													
	Sin	d.	Tang	d.c	Cotg	Cos		92	91	90	89	88	87	86	85	84	83	82	81	80
0	9.14356	89	9.14780	92	0.85220	9.99575	60	1	2	1	1	1	1	1	1	1	1	1	1	1
1	9.14445	90	9.14872	91	0.85128	9.99574	59	2	3	3	3	3	3	3	3	3	3	3	3	3
2	9.14535	89	9.14963	91	0.85037	9.99572	58	3	5	5	4	4	4	4	4	4	4	4	4	4
3	9.14624	90	9.15054	91	0.84946	9.99570	57	4	6	6	6	6	6	6	6	6	6	5	5	5
4	9.14714	89	9.15145	91	0.84855	9.99568	56	5	8	8	7	7	7	7	7	7	7	7	7	7
5	9.14803	88	9.15236	91	0.84764	9.99566	55	6	9	9	9	9	9	9	8	8	8	8	8	8
6	9.14891	89	9.15327	90	0.84673	9.99565	54	7	11	11	10	10	10	10	10	10	10	10	9	9
7	9.14980	89	9.15417	91	0.84583	9.99563	53	8	12	12	12	12	12	11	11	11	11	11	11	11
8	9.15069	88	9.15508	90	0.84492	9.99561	52	9	14	14	13	13	13	13	13	13	12	12	12	12
9	9.15157	88	9.15598	90	0.84402	9.99559	51	10	15	15	15	15	15	14	14	14	14	14	13	13
10	9.15245	88	9.15688	89	0.84312	9.99557	50	11	17	17	16	16	16	16	16	15	15	15	15	15
11	9.15333	88	9.15777	90	0.84223	9.99556	49	12	18	18	18	18	18	17	17	17	17	16	16	16
12	9.15421	87	9.15867	89	0.84133	9.99554	48	13	20	20	19	19	19	19	18	18	18	18	18	17
13	9.15508	88	9.15956	90	0.84044	9.99552	47	14	21	21	21	21	21	20	20	20	20	19	19	19
14	9.15596	87	9.16046	89	0.83954	9.99550	46	15	23	23	22	22	22	21	21	21	21	20	20	20
15	9.15683	87	9.16135	89	0.83865	9.99548	45	16	25	24	24	24	23	23	23	22	22	22	22	21
16	9.15770	87	9.16224	88	0.83776	9.99546	44	17	26	26	25	25	25	24	24	24	24	23	23	23
17	9.15857	87	9.16312	89	0.83688	9.99545	43	18	28	27	27	27	26	26	26	25	25	25	24	24
18	9.15944	86	9.16401	88	0.83599	9.99543	42	19	29	29	28	28	28	27	27	27	26	26	26	25
19	9.16030	86	9.16489	88	0.83511	9.99541	41	20	31	30	30	30	29	29	29	28	28	28	27	27
20	9.16116	87	9.16577	88	0.83423	9.99539	40	21	32	32	31	31	31	30	30	30	29	29	29	28
21	9.16203	86	9.16665	88	0.83335	9.99537	39	22	34	33	33	33	32	32	32	31	31	30	30	29
22	9.16289	85	9.16753	88	0.83247	9.99535	38	23	35	35	34	34	34	33	33	33	32	32	31	31
23	9.16374	86	9.16841	87	0.83159	9.99533	37	24	37	36	36	36	35	35	34	34	34	33	33	32
24	9.16460	85	9.16928	88	0.83072	9.99532	36	25	38	38	37	37	37	36	36	35	35	35	34	34
25	9.16545	86	9.17016	87	0.82984	9.99530	35	26	40	39	39	39	38	38	37	37	36	36	35	35
26	9.16631	85	9.17103	87	0.82897	9.99528	34	27	41	41	40	40	40	39	39	38	38	37	37	36
27	9.16716	85	9.17190	87	0.82810	9.99526	33	28	43	42	42	42	41	41	40	40	39	39	38	37
28	9.16801	85	9.17277	86	0.82723	9.99524	32	29	44	44	43	43	43	42	42	41	41	40	39	39
29	9.16886	84	9.17363	87	0.82637	9.99522	31	30	46	45	45	44	44	43	43	42	42	41	40	40
30	9.16970	85	9.17450	86	0.82550	9.99520	30	31	48	47	46	46	45	45	44	44	43	43	42	41
31	9.17055	84	9.17536	86	0.82464	9.99518	29	32	49	49	48	47	47	46	46	45	45	44	44	43
32	9.17139	84	9.17622	86	0.82378	9.99517	28	33	51	50	49	49	48	48	47	47	46	46	45	44
33	9.17223	84	9.17708	86	0.82292	9.99515	27	34	52	52	51	50	50	49	49	48	48	47	46	45
34	9.17307	84	9.17794	86	0.82206	9.99513	26	35	54	53	52	52	51	51	50	50	49	48	48	47
35	9.17391	83	9.17880	85	0.82120	9.99511	25	36	55	55	54	53	53	52	52	51	50	50	49	48
36	9.17474	84	9.17965	86	0.82035	9.99509	24	37	57	56	55	55	54	54	53	52	52	51	51	50
37	9.17558	83	9.18051	85	0.81949	9.99507	23	38	58	58	57	56	56	55	54	54	53	53	52	51
38	9.17641	83	9.18136	85	0.81864	9.99505	22	39	60	59	58	58	57	57	56	55	55	54	53	52
39	9.17724	83	9.18221	85	0.81779	9.99503	21	40	61	61	60	59	59	58	57	57	56	55	55	54
40	9.17807	83	9.18306	85	0.81694	9.99501	20	41	63	62	61	61	60	59	59	58	57	57	56	55
41	9.17890	83	9.18391	84	0.81609	9.99499	19	42	64	64	63	62	62	61	60	59	59	58	57	56
42	9.17973	82	9.18475	85	0.81525	9.99497	18	43	66	65	64	64	63	62	62	61	60	59	59	58
43	9.18055	82	9.18560	84	0.81440	9.99495	17	44	67	67	66	65	65	64	63	62	62	61	60	59
44	9.18137	83	9.18644	84	0.81356	9.99494	16	45	69	68	67	67	66	65	64	64	63	62	61	60
45	9.18220	82	9.18728	84	0.81272	9.99492	15	46	71	70	69	68	67	67	66	65	64	64	63	62
46	9.18302	81	9.18812	84	0.81188	9.99490	14	47	72	71	70	70	69	68	67	67	66	65	64	63
47	9.18383	82	9.18896	83	0.81104	9.99488	13	48	74	73	72	71	70	70	69	68	67	66	65	64
48	9.18465	82	9.18979	84	0.81021	9.99486	12	49	75	74	73	73	72	71	70	69	69	68	67	66
49	9.18547	81	9.19063	83	0.80937	9.99484	11	50	77	76	75	74	73	72	72	71	70	69	68	67
50	9.18628	81	9.19146	83	0.80854	9.99482	10	51	78	77	76	76	75	74	73	72	71	71	70	69
51	9.18709	81	9.19229	83	0.80771	9.99480	9	52	80	79	78	77	76	75	75	74	73	72	71	70
52	9.18790	81	9.19312	83	0.80688	9.99478	8	53	81	80	79	79	78	77	76	75	74	73	72	71
53	9.18871	81	9.19395	83	0.80605	9.99476	7	54	83	82	81	80	79	78	77	76	75	74	73	72
54	9.18952	81	9.19478	83	0.80522	9.99474	6	55	84	83	82	82	81	80	79	78	77	76	75	74
55	9.19033	80	9.19561	82	0.80439	9.99472	5	56	86	85	84	83	82	81	80	79	78	77	76	75
56	9.19113	80	9.19643	82	0.80357	9.99470	4	57	87	86	85	85	84	83	82	81	80	79	78	77
57	9.19193	80	9.19725	82	0.80275	9.99468	3	58	89	88	87	86	85	84	83	82	81	80	79	78
58	9.19273	80	9.19807	82	0.80193	9.99466	2	59	90	89	88	88	87	86	85	84	83	82	81	80
59	9.19353	80	9.19889	82	0.80111	9.99464	1	60	92	91	90									

81 GRAD.

9 GRAD.

	Sin	d.	Tang	d.c	Cotg	Cos		P. P.												
0	9.19433	80	9.19971	82	0.80029	9.99462	60	82	81	80	79	78	77	76	75	74	73	72	71	
1	9.19513	79	9.20053	81	0.79947	9.99460	59	1	1	1	1	1	1	1	1	1	1	1	1	
2	9.19592	80	9.20134	82	0.79866	9.99458	58	2	3	3	3	3	3	3	2	2	2	2	2	
3	9.19672	79	9.20216	81	0.79784	9.99456	57	3	4	4	4	4	4	4	4	4	4	4	4	
4	9.19751	79	9.20297	81	0.79703	9.99454	56	4	5	5	5	5	5	5	5	5	5	5	5	
5	9.19830	79	9.20378	81	0.79622	9.99452	55	5	7	7	7	7	6	6	6	6	6	6	6	
6	9.19909	79	9.20459	81	0.79541	9.99450	54	6	8	8	8	8	8	8	7	7	7	7	7	
7	9.19988	79	9.20540	81	0.79460	9.99448	53	7	10	9	9	9	9	9	9	9	9	8	8	
8	9.20067	78	9.20621	80	0.79379	9.99446	52	8	11	11	11	11	10	10	10	10	10	10	9	
9	9.20145	78	9.20701	81	0.79299	9.99444	51	9	12	12	12	12	12	11	11	11	11	11	11	
10	9.20223	79	9.20782	80	0.79218	9.99442	50	10	14	13	13	13	13	13	12	12	12	12	12	
11	9.20302	78	9.20862	80	0.79138	9.99440	49	11	15	15	15	14	14	14	14	14	13	13	13	
12	9.20380	78	9.20942	80	0.79058	9.99438	48	12	16	16	16	16	16	15	15	15	15	14	14	
13	9.20458	77	9.21022	80	0.78978	9.99436	47	13	18	18	17	17	17	17	16	16	16	16	15	
14	9.20535	78	9.21102	80	0.78898	9.99434	46	14	19	19	19	18	18	18	18	17	17	17	17	
15	9.20613	78	9.21182	79	0.78818	9.99432	45	15	20	20	20	20	19	19	19	19	18	18	18	
16	9.20691	77	9.21261	80	0.78739	9.99429	44	16	22	22	21	21	21	21	20	20	20	19	19	
17	9.20768	77	9.21341	79	0.78659	9.99427	43	17	23	23	23	22	22	22	22	21	21	21	20	
18	9.20845	77	9.21420	79	0.78580	9.99425	42	18	25	24	24	24	23	23	23	22	22	22	21	
19	9.20922	77	9.21499	79	0.78501	9.99423	41	19	26	26	25	25	25	24	24	24	23	23	22	
20	9.20999	77	9.21578	79	0.78422	9.99421	40	20	27	27	27	26	26	26	25	25	25	24	24	
21	9.21076	77	9.21657	79	0.78343	9.99419	39	21	29	28	28	28	27	27	27	26	26	26	25	
22	9.21153	76	9.21736	78	0.78264	9.99417	38	22	30	30	29	29	29	28	28	27	27	27	26	
23	9.21229	77	9.21814	79	0.78186	9.99415	37	23	31	31	31	30	30	30	29	29	28	28	27	
24	9.21306	76	9.21893	78	0.78107	9.99413	36	24	33	32	32	32	31	31	30	30	29	29	28	
25	9.21382	76	9.21971	78	0.78029	9.99411	35	25	34	34	33	33	32	32	32	31	31	30	30	
26	9.21458	76	9.22049	78	0.77951	9.99409	34	26	36	35	35	34	34	33	33	32	32	32	31	
27	9.21534	76	9.22127	78	0.77873	9.99407	33	27	37	36	36	36	35	35	34	34	33	33	32	
28	9.21610	75	9.22205	78	0.77795	9.99404	32	28	38	38	37	37	36	36	35	35	35	34	33	
29	9.21685	76	9.22283	78	0.77717	9.99402	31	29	40	39	39	38	38	37	37	36	36	35	34	
30	9.21761	75	9.22361	77	0.77639	9.99400	30	30	41	40	40	39	39	38	38	37	37	36	35	
31	9.21836	76	9.22438	78	0.77562	9.99398	29	31	42	42	41	41	40	40	39	39	38	38	37	
32	9.21912	75	9.22516	77	0.77484	9.99396	28	32	44	43	43	42	42	41	41	40	39	39	38	
33	9.21987	75	9.22593	77	0.77407	9.99394	27	33	45	45	44	43	43	42	42	41	41	40	39	
34	9.22062	75	9.22670	77	0.77330	9.99392	26	34	46	46	45	45	44	44	43	42	42	41	40	
35	9.22137	74	9.22747	77	0.77253	9.99390	25	35	48	47	47	46	45	45	44	44	43	43	42	
36	9.22211	75	9.22824	77	0.77176	9.99388	24	36	49	49	48	47	47	46	46	45	44	44	43	
37	9.22286	75	9.22901	76	0.77099	9.99385	23	37	51	50	49	49	48	47	47	46	46	45	44	
38	9.22361	74	9.22977	77	0.77023	9.99383	22	38	52	51	51	50	49	49	48	47	47	46	45	
39	9.22435	74	9.23054	76	0.76946	9.99381	21	39	53	53	52	51	51	50	49	49	48	47	46	
40	9.22509	74	9.23130	76	0.76870	9.99379	20	40	55	54	53	53	52	51	51	50	49	49	48	
41	9.22583	74	9.23206	77	0.76794	9.99377	19	41	56	55	55	54	53	53	52	51	51	50	49	
42	9.22657	74	9.23283	76	0.76717	9.99375	18	42	57	57	56	55	55	54	53	52	52	51	50	
43	9.22731	74	9.23359	76	0.76641	9.99372	17	43	59	58	57	57	56	55	54	54	53	52	51	
44	9.22805	73	9.23435	75	0.76565	9.99370	16	44	60	59	59	58	57	56	56	55	54	54	53	
45	9.22878	74	9.23510	76	0.76490	9.99368	15	45	61	61	60	59	58	58	57	56	55	55	54	
46	9.22952	73	9.23586	75	0.76414	9.99366	14	46	63	62	61	61	60	59	58	57	57	56	55	
47	9.23025	73	9.23661	76	0.76339	9.99364	13	47	64	63	63	62	61	60	60	59	58	57	56	
48	9.23098	73	9.23737	75	0.76263	9.99362	12	48	66	65	64	63	62	62	61	60	59	58	57	
49	9.23171	73	9.23812	75	0.76188	9.99359	11	49	67	66	65	65	64	63	62	61	60	60	59	
50	9.23244	73	9.23887	75	0.76113	9.99357	10	50	68	67	67	66	65	64	63	62	62	61	60	
51	9.23317	73	9.23962	75	0.76038	9.99355	9	51	70	69	68	67	66	65	65	64	63	62	61	
52	9.23390	72	9.24037	75	0.75963	9.99353	8	52	71	70	69	68	68	67	66	65	64	63	62	
53	9.23462	73	9.24112	74	0.75888	9.99351	7	53	72	72	71	70	69	68	67	66	65	64	63	
54	9.23535	72	9.24186	75	0.75814	9.99348	6	54	74	73	72	71	70	69	68	67	67	66	65	
55	9.23607	72	9.24261	74	0.75739	9.99346	5	55	75	74	73	72	71	71	70	69	68	67	66	
56	9.23679	73	9.24335	75	0.75665	9.99344	4	56	77	76	75	74	73	72	71	70	69	68	67	
57	9.23752	71	9.24410	74	0.75590	9.99342	3	57	78	77	76	75	74	73	72	71	70	69	68	
58	9.23823	72	9.24484	74	0.75516	9.99340	2	58	79	78	77	76	75	74	73	72	72	71	70	
59	9.23895	72	9.24558	74	0.75442	9.99337	1	59	81	80	79	78	77	76	75	74	73	72	71	
60	9.23967		9.24632		0.75368	9.99335	0	60	82	81	80	79	78	77	76	75	74	73	72	
	Cos	d.	Cotg	d.c	Tang	Sin		P. P.												

	Sin	d.	Tang	d. c.	Cotg	Cos			P. P.										
0	9.23967		9.24632		0.75368	9.99335	60		74	73	72	71	70	69	68	67	66	65	
1	9.24039	72	9.24706	74	0.75294	9.99333	59	1	1	1	1	1	1	1	1	1	1	1	
2	9.24110	71	9.24779	73	0.75221	9.99331	58	2	2	2	2	2	2	2	2	2	2	2	
3	9.24181	71	9.24853	74	0.75147	9.99328	57	3	4	4	4	4	3	3	3	3	3	3	
4	9.24253	72	9.24926	73	0.75074	9.99326	56	4	5	5	5	5	5	5	5	4	4	4	
5	9.24324	71	9.25000	74	0.75000	9.99324	55	5	6	6	6	6	6	6	6	6	5	5	
6	9.24395	71	9.25073	73	0.74927	9.99322	54	6	7	7	7	7	7	7	7	7	7	6	
7	9.24466	71	9.25146	73	0.74854	9.99319	53	7	9	9	8	8	8	8	8	8	8	8	
8	9.24536	70	9.25219	73	0.74781	9.99317	52	8	10	10	10	9	9	9	9	9	9	9	
9	9.24607	71	9.25292	73	0.74708	9.99315	51	9	11	11	11	11	10	10	10	10	10	10	
10	9.24677	70	9.25365	72	0.74635	9.99313	50	10	12	12	12	12	12	11	11	11	11	11	
11	9.24748	71	9.25437	72	0.74563	9.99310	49	11	14	13	13	13	13	13	12	12	12	12	
12	9.24818	70	9.25510	73	0.74490	9.99308	48	12	15	15	14	14	14	14	14	13	13	13	
13	9.24888	70	9.25582	72	0.74418	9.99306	47	13	16	16	16	15	15	15	15	15	14	14	
14	9.24958	70	9.25655	73	0.74345	9.99304	46	14	17	17	17	17	16	16	16	16	15	15	
15	9.25028	70	9.25727	72	0.74273	9.99301	45	15	18	18	18	18	17	17	17	17	16	16	
16	9.25098	70	9.25799	72	0.74201	9.99299	44	16	20	19	19	19	19	18	18	18	18	17	
17	9.25168	69	9.25871	72	0.74129	9.99297	43	17	21	21	20	20	20	20	19	19	19	18	
18	9.25237	70	9.25943	72	0.74057	9.99294	42	18	22	22	22	21	21	21	20	20	20	19	
19	9.25307	69	9.26015	71	0.73985	9.99292	41	19	23	23	23	22	22	22	22	21	21	21	
20	9.25376	69	9.26086	72	0.73914	9.99290	40	20	25	24	24	24	23	23	23	22	22	22	
21	9.25445	69	9.26158	71	0.73842	9.99288	39	21	26	26	25	25	24	24	24	23	23	23	
22	9.25514	69	9.26229	72	0.73771	9.99285	38	22	27	27	26	26	26	25	25	25	24	24	
23	9.25583	69	9.26301	71	0.73699	9.99283	37	23	28	28	28	27	27	26	26	26	25	25	
24	9.25652	69	9.26372	71	0.73628	9.99281	36	24	30	29	29	28	28	28	27	27	26	26	
25	9.25721	69	9.26443	71	0.73557	9.99278	35	25	31	30	30	30	29	29	28	28	27	27	
26	9.25790	68	9.26514	71	0.73486	9.99276	34	26	32	32	31	31	30	30	29	29	29	28	
27	9.25858	69	9.26585	70	0.73415	9.99274	33	27	33	33	32	32	31	31	31	30	30	29	
28	9.25927	68	9.26655	71	0.73345	9.99271	32	28	35	34	34	33	33	32	32	31	31	30	
29	9.25995	68	9.26726	71	0.73274	9.99269	31	29	36	35	35	34	34	33	33	32	32	31	
30	9.26063	68	9.26797	70	0.73203	9.99267	30	30	37	36	36	35	35	34	34	33	33	32	
31	9.26131	68	9.26867	70	0.73133	9.99264	29	31	38	38	37	37	36	36	35	35	34	34	
32	9.26199	68	9.26937	71	0.73063	9.99262	28	32	39	39	38	38	37	37	36	36	35	35	
33	9.26267	68	9.27008	70	0.72992	9.99260	27	33	41	40	40	39	38	38	37	37	36	36	
34	9.26335	68	9.27078	70	0.72922	9.99257	26	34	42	41	41	40	40	39	39	38	37	37	
35	9.26403	67	9.27148	70	0.72852	9.99255	25	35	43	43	42	41	41	40	40	39	38	38	
36	9.26470	68	9.27218	70	0.72782	9.99252	24	36	44	44	43	43	42	41	41	40	40	39	
37	9.26538	67	9.27288	69	0.72712	9.99250	23	37	46	45	44	44	43	43	42	41	41	40	
38	9.26605	67	9.27357	70	0.72643	9.99248	22	38	47	46	46	45	44	44	43	42	42	41	
39	9.26672	67	9.27427	69	0.72573	9.99245	21	39	48	47	47	46	45	45	44	44	43	42	
40	9.26739	67	9.27496	70	0.72504	9.99243	20	40	49	49	48	47	47	46	45	45	44	43	
41	9.26806	67	9.27566	69	0.72434	9.99241	19	41	51	50	49	49	48	47	46	46	45	44	
42	9.26873	67	9.27635	69	0.72365	9.99238	18	42	52	51	50	50	49	48	48	47	46	45	
43	9.26940	67	9.27704	69	0.72296	9.99236	17	43	53	52	52	51	50	49	49	48	47	47	
44	9.27007	66	9.27773	69	0.72227	9.99233	16	44	54	54	53	52	51	51	50	49	48	48	
45	9.27073	67	9.27842	69	0.72158	9.99231	15	45	55	55	54	53	52	52	51	50	49	49	
46	9.27140	66	9.27911	69	0.72089	9.99229	14	46	57	56	55	54	54	53	52	51	51	50	
47	9.27206	67	9.27980	69	0.72020	9.99226	13	47	58	57	56	56	55	54	53	52	52	51	
48	9.27273	66	9.28049	68	0.71951	9.99224	12	48	59	58	58	57	56	55	54	54	53	52	
49	9.27339	66	9.28117	69	0.71883	9.99221	11	49	60	60	59	58	57	56	56	55	54	53	
50	9.27405	66	9.28186	68	0.71814	9.99219	10	50	62	61	60	59	58	57	57	56	55	54	
51	9.27471	66	9.28254	69	0.71746	9.99217	9	51	63	62	61	60	59	59	58	57	56	55	
52	9.27537	65	9.28323	68	0.71677	9.99214	8	52	64	63	62	62	61	60	59	58	57	56	
53	9.27602	66	9.28391	68	0.71609	9.99212	7	53	65	64	64	63	62	61	60	59	58	57	
54	9.27668	66	9.28459	68	0.71541	9.99209	6	54	67	66	65	64	63	62	61	60	59	58	
55	9.27734	65	9.28527	68	0.71473	9.99207	5	55	68	67	66	65	64	63	62	61	60	60	
56	9.27799	65	9.28595	67	0.71405	9.99204	4	56	69	68	67	66	65	64	63	63	62	61	
57	9.27864	66	9.28662	68	0.71338	9.99202	3	57	70	69	68	67	66	66	65	64	63	62	
58	9.27930	65	9.28730	68	0.71270	9.99200	2	58	72	71	70	69	68	67	66	65	64	63	
59	9.27995	65	9.28798	67	0.71202	9.99197	1	59	73	72	71	70	69	68	67	66	65	64	
60	9.28060		9.28865		0.71135	9.99195	0	60	74	73	72	71	70	69	68	67	66	65	
	Cos	d.	Cotg	d. c.	Tang	Sin			P. P.										

II GRAD.

	Sin	d.	Tang	d. c.	Cotg	Cos			P. P.										
0	9.28060		9.28865		0.71135	9.99195	60		68	67	66	65	64	63	62	61	60	59	
1	9.28125	65	9.28933	68	0.71067	9.99192	59	1	1	1	1	1	1	1	1	1	1	1	
2	9.28190	65	9.29000	67	0.71000	9.99190	58	2	2	2	2	2	2	2	2	2	2	2	
3	9.28254	64	9.29067	67	0.70933	9.99187	57	3	3	3	3	3	3	3	3	3	3	3	
4	9.28319	65	9.29134	67	0.70866	9.99185	56	4	5	4	4	4	4	4	4	4	4	4	
5	9.28384	64	9.29201	67	0.70799	9.99182	55	5	6	6	5	5	5	5	5	5	5	5	
6	9.28448	64	9.29268	67	0.70732	9.99180	54	6	7	7	7	6	6	6	6	6	6	6	
7	9.28512	65	9.29335	67	0.70665	9.99177	53	7	8	8	8	8	7	7	7	7	7	7	
8	9.28577	64	9.29402	66	0.70598	9.99175	52	8	9	9	9	9	9	8	8	8	8	8	
9	9.28641	64	9.29468	67	0.70532	9.99172	51	9	10	10	10	10	10	9	9	9	9	9	
10	9.28705	64	9.29535	66	0.70465	9.99170	50	10	11	11	11	11	11	10	10	10	10	10	
11	9.28769	64	9.29601	67	0.70399	9.99167	49	11	12	12	12	12	12	12	11	11	11	11	
12	9.28833	63	9.29668	66	0.70332	9.99165	48	12	14	13	13	13	13	13	12	12	12	12	
13	9.28896	64	9.29734	66	0.70266	9.99162	47	13	15	15	14	14	14	14	13	13	13	13	
14	9.28960	64	9.29800	66	0.70200	9.99160	46	14	16	16	15	15	15	15	14	14	14	14	
15	9.29024	63	9.29866	66	0.70134	9.99157	45	15	17	17	16	16	16	16	15	15	15	15	
16	9.29087	63	9.29932	66	0.70068	9.99155	44	16	18	18	18	17	17	17	17	16	16	16	
17	9.29150	64	9.29998	66	0.70002	9.99152	43	17	19	19	19	18	18	18	18	17	17	17	
18	9.29214	63	9.30064	66	0.69936	9.99150	42	18	20	20	20	19	19	19	19	18	18	18	
19	9.29277	63	9.30130	65	0.69870	9.99147	41	19	22	21	21	21	20	20	20	19	19	19	
20	9.29340	63	9.30195	66	0.69805	9.99145	40	20	23	22	22	22	21	21	21	20	20	20	
21	9.29403	63	9.30261	65	0.69739	9.99142	39	21	24	23	23	23	22	22	22	21	21	21	
22	9.29466	63	9.30326	65	0.69674	9.99140	38	22	25	25	24	24	23	23	23	22	22	22	
23	9.29529	62	9.30391	66	0.69609	9.99137	37	23	26	26	25	25	25	24	24	23	23	23	
24	9.29591	63	9.30457	65	0.69543	9.99135	36	24	27	27	26	26	26	25	25	24	24	24	
25	9.29654	62	9.30522	65	0.69478	9.99132	35	25	28	28	27	27	27	26	26	25	25	25	
26	9.29716	63	9.30587	65	0.69413	9.99130	34	26	29	29	29	28	28	27	27	26	26	26	
27	9.29779	62	9.30652	65	0.69348	9.99127	33	27	31	30	30	29	29	28	28	27	27	27	
28	9.29841	62	9.30717	65	0.69283	9.99124	32	28	32	31	31	30	30	29	29	28	28	28	
29	9.29903	63	9.30782	64	0.69218	9.99122	31	29	33	32	32	31	31	30	30	29	29	29	
30	9.29966	62	9.30846	65	0.69154	9.99119	30	30	34	33	33	32	32	31	31	30	30	29	
31	9.30028	62	9.30911	64	0.69089	9.99117	29	31	35	35	34	34	33	33	32	32	31	30	
32	9.30090	61	9.30975	65	0.69025	9.99114	28	32	36	36	35	35	34	34	33	33	32	31	
33	9.30151	62	9.31040	64	0.68960	9.99112	27	33	37	37	36	36	35	35	34	34	33	32	
34	9.30213	62	9.31104	64	0.68896	9.99109	26	34	39	38	37	37	36	36	35	35	34	33	
35	9.30275	61	9.31168	65	0.68832	9.99106	25	35	40	39	38	38	37	37	36	36	35	34	
36	9.30336	62	9.31233	64	0.68767	9.99104	24	36	41	40	40	39	38	38	37	37	36	35	
37	9.30398	61	9.31297	64	0.68703	9.99101	23	37	42	41	41	40	39	39	38	38	37	36	
38	9.30459	62	9.31361	64	0.68639	9.99099	22	38	43	42	42	41	41	40	39	39	38	37	
39	9.30521	61	9.31425	64	0.68575	9.99096	21	39	44	44	43	42	42	41	40	40	39	38	
40	9.30582	61	9.31489	63	0.68511	9.99093	20	40	45	45	44	43	43	42	41	41	40	39	
41	9.30643	61	9.31552	64	0.68448	9.99091	19	41	46	46	45	44	44	43	42	42	41	40	
42	9.30704	61	9.31616	63	0.68384	9.99088	18	42	48	47	46	45	45	44	43	43	42	41	
43	9.30765	61	9.31679	64	0.68321	9.99086	17	43	49	48	47	47	46	45	44	44	43	42	
44	9.30826	61	9.31743	63	0.68257	9.99083	16	44	50	49	48	48	47	46	45	45	44	43	
45	9.30887	60	9.31806	64	0.68194	9.99080	15	45	51	50	49	49	48	47	46	46	45	44	
46	9.30947	61	9.31870	63	0.68130	9.99078	14	46	52	51	51	50	49	48	48	47	46	45	
47	9.31008	60	9.31933	63	0.68067	9.99075	13	47	53	52	52	51	50	49	49	48	47	46	
48	9.31068	61	9.31996	63	0.68004	9.99072	12	48	54	54	53	52	51	50	50	49	48	47	
49	9.31129	60	9.32059	63	0.67941	9.99070	11	49	56	55	54	53	52	51	51	50	49	48	
50	9.31189	61	9.32122	63	0.67878	9.99067	10	50	57	56	55	54	53	52	52	51	50	49	
51	9.31250	60	9.32185	63	0.67815	9.99064	9	51	58	57	56	55	54	54	53	52	51	50	
52	9.31310	60	9.32248	63	0.67752	9.99062	8	52	59	58	57	56	55	55	54	53	52	51	
53	9.31370	60	9.32311	62	0.67689	9.99059	7	53	60	59	58	57	57	56	55	54	53	52	
54	9.31430	60	9.32373	63	0.67627	9.99056	6	54	61	60	59	58	58	57	56	55	54	53	
55	9.31490	59	9.32436	62	0.67564	9.99054	5	55	62	61	60	60	59	58	57	56	55	54	
56	9.31549	60	9.32498	63	0.67502	9.99051	4	56	63	63	62	61	60	59	58	57	56	55	
57	9.31609	60	9.32561	62	0.67439	9.99048	3	57	65	64	63	62	61	60	59	58	57	56	
58	9.31669	59	9.32623	62	0.67377	9.99046	2	58	66	65	64	63	62	61	60	59	58	57	
59	9.31728	60	9.32685	62	0.67315	9.99043	1	59	67	66	65	64	63	62	61	60	59	58	
60	9.31788		9.32747		0.67253	9.99040	0	60	68	67	66	65	64	63	62	61	60	59	
	Cos	d.	Cotg	d. c.	Tang	Sin			P. P.										

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										P. P.									
	Sin	d.	Tang	d.c	Cotg	Cos		"		63	62	61	60	59	58	57	56	55	
0	9.31788		9.32747		0.67253	9.99040	60												
1	9.31847	59	9.32810	63	0.67190	9.99038	59	1	1	1	1	1	1	1	1	1	1	1	1
2	9.31907	60	9.32872	62	0.67128	9.99035	58	2	2	2	2	2	2	2	2	2	2	2	2
3	9.31966	59	9.32933	61	0.67067	9.99032	57	3	3	3	3	3	3	3	3	3	3	3	3
4	9.32025	59	9.32995	62	0.67005	9.99030	56	4	4	4	4	4	4	4	4	4	4	4	4
5	9.32084	59	9.33057	62	0.66943	9.99027	55	5	5	5	5	5	5	5	5	5	5	5	5
6	9.32143	59	9.33119	61	0.66881	9.99024	54	6	6	6	6	6	6	6	6	6	6	5	5
7	9.32202	59	9.33180	62	0.66820	9.99022	53	7	7	7	7	7	7	7	7	7	7	6	6
8	9.32261	58	9.33242	61	0.66758	9.99019	52	8	8	8	8	8	8	8	8	8	7	7	7
9	9.32319	59	9.33303	62	0.66697	9.99016	51	9	9	9	9	9	9	9	9	9	8	8	8
10	9.32378	59	9.33365	61	0.66635	9.99013	50	10	10	10	10	10	10	10	10	9	9	9	9
11	9.32437	58	9.33426	61	0.66574	9.99011	49	11	12	11	11	11	11	11	11	10	10	10	10
12	9.32495	58	9.33487	61	0.66513	9.99008	48	12	13	12	12	12	12	12	12	11	11	11	11
13	9.32553	59	9.33548	61	0.66452	9.99005	47	13	14	13	13	13	13	13	13	12	12	12	12
14	9.32612	58	9.33609	61	0.66391	9.99002	46	14	15	14	14	14	14	14	14	13	13	13	13
15	9.32670	58	9.33670	61	0.66330	9.99000	45	15	16	15	15	15	15	15	14	14	14	14	14
16	9.32728	58	9.33731	61	0.66269	9.98997	44	16	17	17	16	16	16	16	15	15	15	15	15
17	9.32786	58	9.33792	61	0.66208	9.98994	43	17	18	18	17	17	17	17	16	16	16	16	16
18	9.32844	58	9.33853	60	0.66147	9.98991	42	18	19	19	18	18	18	18	17	17	17	17	16
19	9.32902	58	9.33913	61	0.66087	9.98989	41	19	20	20	19	19	19	19	18	18	18	18	17
20	9.32960	58	9.33974	60	0.66026	9.98986	40	20	21	21	20	20	20	20	19	19	19	19	18
21	9.33018	57	9.34034	61	0.65966	9.98983	39	21	22	22	21	21	21	21	20	20	20	20	19
22	9.33075	58	9.34095	60	0.65905	9.98980	38	22	23	23	22	22	22	22	21	21	21	21	20
23	9.33133	57	9.34155	60	0.65845	9.98978	37	23	24	24	23	23	23	23	22	22	22	21	21
24	9.33190	58	9.34215	61	0.65785	9.98975	36	24	25	25	24	24	24	24	23	23	23	22	22
25	9.33248	57	9.34276	60	0.65724	9.98972	35	25	26	26	25	25	25	25	24	24	24	23	23
26	9.33305	57	9.34336	60	0.65664	9.98969	34	26	27	27	26	26	26	26	25	25	25	24	24
27	9.33362	58	9.34396	60	0.65604	9.98967	33	27	28	28	27	27	27	27	26	26	26	25	25
28	9.33420	57	9.34456	60	0.65544	9.98964	32	28	29	29	28	28	28	28	27	27	27	26	26
29	9.33477	57	9.34516	60	0.65484	9.98961	31	29	30	30	29	29	29	29	28	28	27	27	27
30	9.33534	57	9.34576	59	0.65424	9.98958	30	30	31	31	30	30	29	29	29	28	28	28	27
31	9.33591	56	9.34635	60	0.65365	9.98955	29	31	33	32	32	31	30	30	30	29	29	29	28
32	9.33647	57	9.34695	60	0.65305	9.98953	28	32	34	33	33	32	31	31	31	30	30	30	29
33	9.33704	57	9.34755	59	0.65245	9.98950	27	33	35	34	34	33	32	32	32	31	31	31	30
34	9.33761	57	9.34814	60	0.65186	9.98947	26	34	36	35	35	34	33	33	33	32	32	32	31
35	9.33818	56	9.34874	59	0.65126	9.98944	25	35	37	36	36	35	34	34	34	33	33	33	32
36	9.33874	57	9.34933	59	0.65067	9.98941	24	36	38	37	37	36	35	35	35	34	34	34	33
37	9.33931	56	9.34992	59	0.65008	9.98938	23	37	39	38	38	37	36	36	36	35	35	35	34
38	9.33987	56	9.35051	60	0.64949	9.98936	22	38	40	39	39	38	37	37	37	36	35	35	35
39	9.34043	57	9.35111	59	0.64889	9.98933	21	39	41	40	40	39	38	38	38	37	36	36	36
40	9.34100	56	9.35170	59	0.64830	9.98930	20	40	42	41	41	40	39	39	39	38	37	37	37
41	9.34156	56	9.35229	59	0.64771	9.98927	19	41	43	42	42	41	40	40	40	39	38	38	38
42	9.34212	56	9.35288	59	0.64712	9.98924	18	42	44	43	43	42	41	41	41	40	39	39	38
43	9.34268	56	9.35347	58	0.64653	9.98921	17	43	45	44	44	43	42	42	42	41	40	40	39
44	9.34324	56	9.35405	59	0.64595	9.98919	16	44	46	45	45	44	43	43	43	42	41	41	40
45	9.34380	56	9.35464	59	0.64536	9.98916	15	45	47	46	46	45	44	44	43	43	42	42	41
46	9.34436	55	9.35523	58	0.64477	9.98913	14	46	48	48	47	46	45	45	44	44	43	43	42
47	9.34491	56	9.35581	59	0.64419	9.98910	13	47	49	49	48	47	46	46	45	45	44	44	43
48	9.34547	55	9.35640	58	0.64360	9.98907	12	48	50	50	49	48	47	47	46	46	45	45	44
49	9.34602	56	9.35698	59	0.64302	9.98904	11	49	51	51	50	49	48	48	47	47	46	46	45
50	9.34658	55	9.35757	58	0.64243	9.98901	10	50	52	52	51	50	49	49	48	47	47	47	46
51	9.34713	56	9.35815	58	0.64185	9.98898	9	51	54	53	52	51	50	49	49	48	48	48	47
52	9.34769	55	9.35873	58	0.64127	9.98896	8	52	55	54	53	52	51	50	50	49	49	49	48
53	9.34824	55	9.35931	58	0.64069	9.98893	7	53	56	55	54	53	52	51	51	50	49	49	49
54	9.34879	55	9.35989	58	0.64011	9.98890	6	54	57	56	55	54	53	52	52	51	50	50	49
55	9.34934	55	9.36047	58	0.63953	9.98887	5	55	58	57	56	55	54	53	53	52	51	51	50
56	9.34989	55	9.36105	58	0.63895	9.98884	4	56	59	58	57	56	55	54	54	53	52	52	51
57	9.35044	55	9.36163	58	0.63837	9.98881	3	57	60	59	58	57	56	55	55	54	53	53	52
58	9.35099	55	9.36221	58	0.63779	9.98878	2	58	61	60	59	58	57	56	56	55	54	54	53
59	9.35154	55	9.36279	57	0.63721	9.98875	1	59	62	61	60	59	58	57	57	56	55	55	54
60	9.35209		9.36336		0.63664	9.98872	0	60	63	62	61	60	59	58	58	57	56	56	55
	Cos	d.	Cotg	d.c	Tang	Sin		"	P. P.										

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°	Sin						°	P. P.							
	Sin	d.	Tang	d. c.	Cotg	Coa		58	57	56	55	54	53	52	51
0	9.35209		9.36336		0.63664	9.98872	60								
1	9.35263	54	9.36394	58	0.63606	9.98869	59	1	1	1	1	1	1	1	1
2	9.35318	55	9.36452	58	0.63548	9.98867	58	2	2	2	2	2	2	2	2
3	9.35373	55	9.36509	57	0.63491	9.98864	57	3	3	3	3	3	3	3	3
4	9.35427	54	9.36566	58	0.63434	9.98861	56	4	4	4	4	4	4	3	3
5	9.35481	55	9.36624	57	0.63376	9.98858	55	5	5	5	5	4	4	4	4
6	9.35536	54	9.36681	57	0.63319	9.98855	54	6	6	6	5	5	5	5	5
7	9.35590	54	9.36738	57	0.63262	9.98852	53	7	7	7	6	6	6	6	6
8	9.35644	54	9.36795	57	0.63205	9.98849	52	8	8	8	7	7	7	7	7
9	9.35698	54	9.36852	57	0.63148	9.98846	51	9	9	8	8	8	8	8	8
10	9.35752	54	9.36909	57	0.63091	9.98843	50	10	10	9	9	9	9	9	8
11	9.35806	54	9.36966	57	0.63034	9.98840	49	11	11	10	10	10	10	10	9
12	9.35860	54	9.37023	57	0.62977	9.98837	48	12	12	11	11	11	11	10	10
13	9.35914	54	9.37080	57	0.62920	9.98834	47	13	13	12	12	12	11	11	11
14	9.35968	54	9.37137	56	0.62863	9.98831	46	14	14	13	13	13	12	12	12
15	9.36022	53	9.37193	57	0.62807	9.98828	45	15	14	14	14	13	13	13	13
16	9.36075	54	9.37250	56	0.62750	9.98825	44	16	15	15	15	14	14	14	14
17	9.36129	53	9.37306	57	0.62694	9.98822	43	17	16	16	16	15	15	15	14
18	9.36182	54	9.37363	56	0.62637	9.98819	42	18	17	17	17	16	16	16	15
19	9.36236	53	9.37419	57	0.62581	9.98816	41	19	18	18	17	17	17	16	16
20	9.36289	53	9.37476	56	0.62524	9.98813	40	20	19	19	18	18	18	17	17
21	9.36342	53	9.37532	56	0.62468	9.98810	39	21	20	20	19	19	19	18	18
22	9.36395	54	9.37588	56	0.62412	9.98807	38	22	21	21	20	20	19	19	19
23	9.36449	53	9.37644	56	0.62356	9.98804	37	23	22	22	21	21	20	20	20
24	9.36502	53	9.37700	56	0.62300	9.98801	36	24	23	23	22	22	21	21	20
25	9.36555	53	9.37756	56	0.62244	9.98798	35	25	24	24	23	22	22	22	21
26	9.36608	52	9.37812	56	0.62188	9.98795	34	26	25	25	24	23	23	23	22
27	9.36660	53	9.37868	56	0.62132	9.98792	33	27	26	26	25	24	24	23	23
28	9.36713	53	9.37924	56	0.62076	9.98789	32	28	27	27	26	25	25	24	24
29	9.36766	53	9.37980	55	0.62020	9.98786	31	29	28	28	27	26	26	25	25
30	9.36819	52	9.38035	56	0.61965	9.98783	30	30	29	28	27	27	26	26	25
31	9.36871	53	9.38091	56	0.61909	9.98780	29	31	30	29	28	28	27	27	26
32	9.36924	52	9.38147	55	0.61853	9.98777	28	32	31	30	29	29	28	28	27
33	9.36976	52	9.38202	55	0.61798	9.98774	27	33	32	31	30	30	29	29	28
34	9.37028	53	9.38257	56	0.61743	9.98771	26	34	33	32	31	31	30	29	29
35	9.37081	52	9.38313	55	0.61687	9.98768	25	35	34	33	32	31	31	30	30
36	9.37133	52	9.38368	55	0.61632	9.98765	24	36	35	34	33	32	32	31	31
37	9.37185	52	9.38423	56	0.61577	9.98762	23	37	36	35	34	33	33	32	31
38	9.37237	52	9.38479	55	0.61521	9.98759	22	38	37	36	35	34	34	33	32
39	9.37289	52	9.38534	55	0.61466	9.98756	21	39	38	37	36	35	34	34	33
40	9.37341	52	9.38589	55	0.61411	9.98753	20	40	39	38	37	36	35	35	34
41	9.37393	52	9.38644	55	0.61356	9.98750	19	41	40	39	38	37	36	36	35
42	9.37445	52	9.38699	55	0.61301	9.98746	18	42	41	40	39	38	37	36	36
43	9.37497	52	9.38754	54	0.61246	9.98743	17	43	42	41	40	39	38	37	37
44	9.37549	51	9.38808	55	0.61192	9.98740	16	44	43	42	41	40	39	38	37
45	9.37600	52	9.38863	55	0.61137	9.98737	15	45	43	43	42	41	40	39	38
46	9.37652	51	9.38918	54	0.61082	9.98734	14	46	44	44	43	42	41	40	39
47	9.37703	52	9.38972	55	0.61028	9.98731	13	47	45	45	44	43	42	41	40
48	9.37755	51	9.39027	55	0.60973	9.98728	12	48	46	46	45	44	43	42	41
49	9.37806	52	9.39082	54	0.60918	9.98725	11	49	47	47	46	45	44	43	42
50	9.37858	51	9.39136	54	0.60864	9.98722	10	50	48	47	47	46	45	44	43
51	9.37909	51	9.39190	55	0.60810	9.98719	9	51	49	48	48	47	46	45	44
52	9.37960	51	9.39245	54	0.60755	9.98715	8	52	50	49	49	48	47	46	45
53	9.38011	51	9.39299	54	0.60701	9.98712	7	53	51	50	49	49	48	47	46
54	9.38062	51	9.39353	54	0.60647	9.98709	6	54	52	51	50	49	49	48	47
55	9.38113	51	9.39407	54	0.60593	9.98706	5	55	53	52	51	50	49	49	48
56	9.38164	51	9.39461	54	0.60539	9.98703	4	56	54	53	52	51	50	49	48
57	9.38215	51	9.39515	54	0.60485	9.98700	3	57	55	54	53	52	51	50	49
58	9.38266	51	9.39569	54	0.60431	9.98697	2	58	56	55	54	53	52	51	50
59	9.38317	51	9.39623	54	0.60377	9.98694	1	59	57	56	55	54	53	52	51
60	9.38368		9.39677		0.60323	9.98690	0	60	58	57	56	55	54	53	52
°	Cos						°	P. P.							
	Coa	d.	Cotg	d. c.	Tang	Sin									

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	Sin	d.	Tang	d.c.	Cotg	Cos			P. P.							
0	9.38368		9.39677		0.60323	9.98690	60		54	53	52	51	50	49	48	47
1	9.38418	50	9.39731	54	0.60269	9.98687	59	1	1	1	1	1	1	1	1	1
2	9.38469	51	9.39785	54	0.60215	9.98684	58	2	2	2	2	2	2	2	2	2
3	9.38519	50	9.39838	53	0.60162	9.98681	57	3	3	3	3	3	2	2	2	2
4	9.38570	51	9.39892	54	0.60108	9.98678	56	4	4	4	3	3	3	3	3	3
5	9.38620	50	9.39945	53	0.60055	9.98675	55	5	4	4	4	4	4	4	4	4
6	9.38670	50	9.39999	54	0.60001	9.98671	54	6	5	5	5	5	5	5	5	5
7	9.38721	51	9.40052	53	0.59948	9.98668	53	7	6	6	6	6	6	6	6	5
8	9.38771	50	9.40106	54	0.59894	9.98665	52	8	7	7	7	7	7	7	6	6
9	9.38821	50	9.40159	53	0.59841	9.98662	51	9	8	8	8	8	7	7	7	7
10	9.38871	50	9.40212	53	0.59788	9.98659	50	10	9	9	9	8	8	8	8	8
11	9.38921	50	9.40266	54	0.59734	9.98656	49	11	10	10	10	9	9	9	9	9
12	9.38971	50	9.40319	53	0.59681	9.98652	48	12	11	11	10	10	10	10	10	9
13	9.39021	50	9.40372	53	0.59628	9.98649	47	13	12	11	11	11	11	11	10	10
14	9.39071	50	9.40425	53	0.59575	9.98646	46	14	13	12	12	12	12	11	11	11
15	9.39121	49	9.40478	53	0.59522	9.98643	45	15	13	13	13	13	12	12	12	12
16	9.39170	50	9.40531	53	0.59469	9.98640	44	16	14	14	14	14	13	13	13	13
17	9.39220	50	9.40584	53	0.59416	9.98636	43	17	15	15	15	14	14	14	14	13
18	9.39270	49	9.40636	52	0.59364	9.98633	42	18	16	16	16	15	15	15	14	14
19	9.39319	49	9.40689	53	0.59311	9.98630	41	19	17	17	16	16	16	16	15	15
20	9.39369	49	9.40742	53	0.59258	9.98627	40	20	18	18	17	17	17	16	16	16
21	9.39418	49	9.40795	53	0.59205	9.98623	39	21	19	19	18	18	17	17	17	16
22	9.39467	50	9.40847	52	0.59153	9.98620	38	22	20	19	19	19	18	18	18	17
23	9.39517	49	9.40900	52	0.59100	9.98617	37	23	21	20	20	20	19	19	18	18
24	9.39566	49	9.40952	52	0.59048	9.98614	36	24	22	21	21	20	20	20	19	19
25	9.39615	49	9.41005	53	0.58995	9.98610	35	25	22	22	22	21	21	20	20	20
26	9.39664	49	9.41057	52	0.58943	9.98607	34	26	23	23	23	22	22	21	21	20
27	9.39713	49	9.41109	52	0.58891	9.98604	33	27	24	24	23	23	22	22	22	21
28	9.39762	49	9.41161	52	0.58839	9.98601	32	28	25	25	24	24	23	23	22	22
29	9.39811	49	9.41214	53	0.58786	9.98597	31	29	26	26	25	25	24	24	23	23
30	9.39860	49	9.41266	52	0.58734	9.98594	30	30	27	26	26	25	25	24	24	23
31	9.39909	49	9.41318	52	0.58682	9.98591	29	31	28	27	27	26	26	25	25	24
32	9.39958	48	9.41370	52	0.58630	9.98588	28	32	29	28	28	27	27	26	26	25
33	9.40006	49	9.41422	52	0.58578	9.98584	27	33	30	29	29	28	27	27	26	26
34	9.40055	48	9.41474	52	0.58526	9.98581	26	34	31	30	29	29	28	28	27	27
35	9.40103	49	9.41526	52	0.58474	9.98578	25	35	31	31	30	30	29	29	28	27
36	9.40152	48	9.41578	52	0.58422	9.98574	24	36	32	32	31	31	30	29	29	28
37	9.40200	48	9.41629	51	0.58371	9.98571	23	37	33	33	32	31	31	30	30	29
38	9.40249	49	9.41681	52	0.58319	9.98568	22	38	34	34	33	32	32	31	30	30
39	9.40297	48	9.41733	52	0.58267	9.98565	21	39	35	34	34	33	32	32	31	31
40	9.40346	48	9.41784	51	0.58216	9.98561	20	40	36	35	35	34	33	33	32	31
41	9.40394	48	9.41836	51	0.58164	9.98558	19	41	37	36	36	35	34	33	33	32
42	9.40442	48	9.41887	52	0.58113	9.98555	18	42	38	37	36	36	35	34	34	33
43	9.40490	48	9.41939	52	0.58061	9.98551	17	43	39	38	37	37	36	35	34	34
44	9.40538	48	9.41990	51	0.58010	9.98548	16	44	40	39	38	37	37	36	35	34
45	9.40586	48	9.42041	51	0.57959	9.98545	15	45	40	40	39	38	37	37	36	35
46	9.40634	48	9.42093	52	0.57907	9.98541	14	46	41	41	40	39	38	38	37	36
47	9.40682	48	9.42144	51	0.57856	9.98538	13	47	42	42	41	40	39	38	38	37
48	9.40730	48	9.42195	51	0.57805	9.98535	12	48	43	42	42	41	40	39	38	38
49	9.40778	47	9.42246	51	0.57754	9.98531	11	49	44	43	42	42	41	40	39	38
50	9.40825	48	9.42297	51	0.57703	9.98528	10	50	45	44	43	42	42	41	40	39
51	9.40873	48	9.42348	51	0.57652	9.98525	9	51	46	45	44	43	42	42	41	40
52	9.40921	47	9.42399	51	0.57601	9.98521	8	52	47	46	45	44	43	42	42	41
53	9.40968	48	9.42450	51	0.57550	9.98518	7	53	48	47	46	45	44	43	42	42
54	9.41016	47	9.42501	51	0.57499	9.98515	6	54	49	48	47	46	45	44	43	42
55	9.41063	48	9.42552	51	0.57448	9.98511	5	55	49	49	48	47	46	45	44	43
56	9.41111	47	9.42603	50	0.57397	9.98508	4	56	50	49	49	48	47	46	45	44
57	9.41158	47	9.42653	51	0.57347	9.98505	3	57	51	50	49	48	47	47	46	45
58	9.41205	47	9.42704	51	0.57296	9.98501	2	58	52	51	50	49	48	47	46	45
59	9.41252	48	9.42755	50	0.57245	9.98498	1	59	53	52	51	50	49	48	47	46
60	9.41300		9.42805		0.57195	9.98494	0	60	54	53	52	51	50	49	48	47
	Cos	d.	Cotg	d.c.	Tang	Sin			P. P.							

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	Sin	d.	Tang	d.c	Cotg	Cos	d.			P. P.											
0	9.41300		9.42805		0.57195	9.98494		60		51	50	49	48	47	46	45	44	43	42	41	40
1	9.41347	47	9.42856	51	0.57144	9.98491	3	59	1	1	1	1	1	1	1	1	1	1	1	1	1
2	9.41394	47	9.42906	50	0.57094	9.98488	3	58	2	2	2	2	2	2	2	2	2	2	2	2	2
3	9.41441	47	9.42957	51	0.57043	9.98484	4	57	3	3	3	3	3	3	3	3	3	3	3	3	3
4	9.41488	47	9.43007	50	0.56993	9.98481	4	56	4	4	4	4	4	4	4	4	4	4	4	4	4
5	9.41535	47	9.43057	51	0.56943	9.98477	3	55	5	5	5	5	5	5	5	5	5	5	5	5	5
6	9.41582	46	9.43108	50	0.56892	9.98474	3	54	6	6	6	6	6	6	6	6	6	6	6	6	6
7	9.41628	47	9.43158	50	0.56842	9.98471	4	53	7	7	7	7	7	7	7	7	7	7	7	7	7
8	9.41675	47	9.43208	50	0.56792	9.98467	3	52	8	8	8	8	8	8	8	8	8	8	8	8	8
9	9.41722	46	9.43258	50	0.56742	9.98464	4	51	9	9	9	9	9	9	9	9	9	9	9	9	9
10	9.41768	47	9.43308	50	0.56692	9.98460	3	50	10	10	10	10	10	10	10	10	10	10	10	10	10
11	9.41815	46	9.43358	50	0.56642	9.98457	4	49	11	11	11	11	11	11	11	11	11	11	11	11	11
12	9.41861	47	9.43408	50	0.56592	9.98453	3	48	12	12	12	12	12	12	12	12	12	12	12	12	12
13	9.41908	46	9.43458	50	0.56542	9.98450	3	47	13	13	13	13	13	13	13	13	13	13	13	13	13
14	9.41954	47	9.43508	50	0.56492	9.98447	4	46	14	14	14	14	14	14	14	14	14	14	14	14	14
15	9.42001	46	9.43558	49	0.56442	9.98443	3	45	15	15	15	15	15	15	15	15	15	15	15	15	15
16	9.42047	46	9.43607	50	0.56393	9.98440	4	44	16	16	16	16	16	16	16	16	16	16	16	16	16
17	9.42093	47	9.43657	50	0.56343	9.98436	3	43	17	17	17	17	17	17	17	17	17	17	17	17	17
18	9.42140	46	9.43707	49	0.56293	9.98433	4	42	18	18	18	18	18	18	18	18	18	18	18	18	18
19	9.42186	46	9.43756	50	0.56244	9.98429	3	41	19	19	19	19	19	19	19	19	19	19	19	19	19
20	9.42232	46	9.43806	49	0.56194	9.98426	4	40	20	20	20	20	20	20	20	20	20	20	20	20	20
21	9.42278	46	9.43855	50	0.56145	9.98422	3	39	21	21	21	21	21	21	21	21	21	21	21	21	21
22	9.42324	46	9.43905	49	0.56095	9.98419	4	38	22	22	22	22	22	22	22	22	22	22	22	22	22
23	9.42370	46	9.43954	50	0.56046	9.98415	3	37	23	23	23	23	23	23	23	23	23	23	23	23	23
24	9.42416	45	9.44004	49	0.55996	9.98412	3	36	24	24	24	24	24	24	24	24	24	24	24	24	24
25	9.42461	46	9.44053	49	0.55947	9.98409	4	35	25	25	25	25	25	25	25	25	25	25	25	25	25
26	9.42507	46	9.44102	49	0.55898	9.98405	3	34	26	26	26	26	26	26	26	26	26	26	26	26	26
27	9.42553	46	9.44151	50	0.55849	9.98402	4	33	27	27	27	27	27	27	27	27	27	27	27	27	27
28	9.42599	45	9.44201	49	0.55799	9.98398	3	32	28	28	28	28	28	28	28	28	28	28	28	28	28
29	9.42644	46	9.44250	49	0.55750	9.98395	4	31	29	29	29	29	29	29	29	29	29	29	29	29	29
30	9.42690	45	9.44299	49	0.55701	9.98391	3	30	30	30	30	30	30	30	30	30	30	30	30	30	30
31	9.42735	46	9.44348	49	0.55652	9.98388	4	29	31	31	31	31	31	31	31	31	31	31	31	31	31
32	9.42781	45	9.44397	49	0.55603	9.98384	3	28	32	32	32	32	32	32	32	32	32	32	32	32	32
33	9.42826	46	9.44446	49	0.55554	9.98381	4	27	33	33	33	33	33	33	33	33	33	33	33	33	33
34	9.42872	45	9.44495	49	0.55505	9.98377	4	26	34	34	34	34	34	34	34	34	34	34	34	34	34
35	9.42917	45	9.44544	48	0.55456	9.98373	3	25	35	35	35	35	35	35	35	35	35	35	35	35	35
36	9.42962	46	9.44592	49	0.55408	9.98370	4	24	36	36	36	36	36	36	36	36	36	36	36	36	36
37	9.43008	45	9.44641	49	0.55359	9.98366	3	23	37	37	37	37	37	37	37	37	37	37	37	37	37
38	9.43053	45	9.44690	48	0.55310	9.98363	4	22	38	38	38	38	38	38	38	38	38	38	38	38	38
39	9.43098	45	9.44738	49	0.55262	9.98359	3	21	39	39	39	39	39	39	39	39	39	39	39	39	39
40	9.43143	45	9.44787	49	0.55213	9.98356	4	20	40	40	40	40	40	40	40	40	40	40	40	40	40
41	9.43188	45	9.44836	48	0.55164	9.98352	3	19	41	41	41	41	41	41	41	41	41	41	41	41	41
42	9.43233	45	9.44884	49	0.55116	9.98349	4	18	42	42	42	42	42	42	42	42	42	42	42	42	42
43	9.43278	45	9.44933	48	0.55067	9.98345	3	17	43	43	43	43	43	43	43	43	43	43	43	43	43
44	9.43323	44	9.44981	48	0.55019	9.98342	4	16	44	44	44	44	44	44	44	44	44	44	44	44	44
45	9.43367	45	9.45029	49	0.54971	9.98338	4	15	45	45	45	45	45	45	45	45	45	45	45	45	45
46	9.43412	45	9.45078	48	0.54922	9.98334	3	14	46	46	46	46	46	46	46	46	46	46	46	46	46
47	9.43457	45	9.45126	48	0.54874	9.98331	4	13	47	47	47	47	47	47	47	47	47	47	47	47	47
48	9.43502	44	9.45174	48	0.54826	9.98327	3	12	48	48	48	48	48	48	48	48	48	48	48	48	48
49	9.43546	45	9.45222	49	0.54778	9.98324	4	11	49	49	49	49	49	49	49	49	49	49	49	49	49
50	9.43591	44	9.45271	48	0.54729	9.98320	3	10	50	50	50	50	50	50	50	50	50	50	50	50	50
51	9.43635	45	9.45319	48	0.54681	9.98317	4	9	51	51	51	51	51	51	51	51	51	51	51	51	51
52	9.43680	44	9.45367	48	0.54633	9.98313	4	8	52	52	52	52	52	52	52	52	52	52	52	52	52
53	9.43724	45	9.45415	48	0.54585	9.98309	3	7	53	53	53	53	53	53	53	53	53	53	53	53	53
54	9.43769	44	9.45463	48	0.54537	9.98306	4	6	54	54	54	54	54	54	54	54	54	54	54	54	54
55	9.43813	44	9.45511	48	0.54489	9.98302	3	5	55	55	55	55	55	55	55	55	55	55	55	55	55
56	9.43857	44	9.45559	47	0.54441	9.98299	4	4	56	56	56	56	56	56	56	56	56	56	56	56	56
57	9.43901	45	9.45606	48	0.54394	9.98295	4	3	57	57	57	57	57	57	57	57	57	57	57	57	5

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										P. P.									
	Sin	d.	Tang	d.c	Cotg	Cos	d.			48	47	46	45	44	43	42	41	40	39
0	9.44034	44	9.45750	47	0.54250	9.98284	3	60	0	1	1	1	1	1	1	1	1	0	0
1	9.44078	44	9.45797	48	0.54203	9.98281	3	59	1	1	1	1	1	1	1	1	1	0	0
2	9.44122	44	9.45845	47	0.54155	9.98277	4	58	2	2	2	1	1	1	1	1	1	0	0
3	9.44166	44	9.45892	48	0.54108	9.98273	3	57	3	2	2	2	2	2	2	2	2	0	0
4	9.44210	43	9.45940	47	0.54060	9.98270	4	56	4	3	3	3	3	3	3	3	3	0	0
5	9.44253	44	9.45987	48	0.54013	9.98266	4	55	5	4	4	4	4	4	4	3	3	0	0
6	9.44297	44	9.46035	47	0.53965	9.98262	3	54	6	5	5	5	4	4	4	4	4	0	0
7	9.44341	44	9.46082	48	0.53918	9.98259	4	53	7	6	5	5	5	5	5	5	5	0	0
8	9.44385	43	9.46130	47	0.53870	9.98255	4	52	8	6	6	6	6	6	6	6	5	1	0
9	9.44428	44	9.46177	47	0.53823	9.98251	3	51	9	7	7	7	7	7	6	6	6	1	0
10	9.44472	44	9.46224	47	0.53776	9.98248	4	50	10	8	8	8	7	7	7	7	7	1	0
11	9.44516	43	9.46271	48	0.53729	9.98244	4	49	11	9	9	8	8	8	8	8	8	1	1
12	9.44559	43	9.46319	47	0.53681	9.98240	3	48	12	10	9	9	9	9	9	8	8	1	1
13	9.44602	44	9.46366	47	0.53634	9.98237	4	47	13	10	10	10	10	10	9	9	9	1	1
14	9.44646	43	9.46413	47	0.53587	9.98233	4	46	14	11	11	11	10	10	10	10	10	1	1
15	9.44689	44	9.46460	47	0.53540	9.98229	3	45	15	12	12	11	11	11	11	10	10	1	1
16	9.44733	43	9.46507	47	0.53493	9.98226	4	44	16	13	13	12	12	12	11	11	11	1	1
17	9.44776	43	9.46554	47	0.53446	9.98222	4	43	17	14	13	13	13	12	12	12	12	1	1
18	9.44819	43	9.46601	47	0.53399	9.98218	3	42	18	14	14	14	13	13	13	13	12	1	1
19	9.44862	43	9.46648	46	0.53352	9.98215	4	41	19	15	15	15	14	14	14	13	13	1	1
20	9.44905	43	9.46694	47	0.53306	9.98211	4	40	20	16	16	15	15	15	14	14	14	1	1
21	9.44948	44	9.46741	47	0.53259	9.98207	3	39	21	17	16	16	16	15	15	15	14	1	1
22	9.44992	43	9.46788	47	0.53212	9.98204	4	38	22	18	17	17	16	16	16	15	15	1	1
23	9.45035	42	9.46835	46	0.53165	9.98200	4	37	23	18	18	18	17	17	16	16	16	2	1
24	9.45077	43	9.46881	47	0.53119	9.98196	4	36	24	19	19	18	18	18	17	17	16	2	1
25	9.45120	43	9.46928	47	0.53072	9.98192	3	35	25	20	20	19	19	18	18	17	17	2	1
26	9.45163	43	9.46975	46	0.53025	9.98189	4	34	26	21	20	20	19	19	19	18	18	2	1
27	9.45206	43	9.47021	47	0.52979	9.98185	4	33	27	22	21	21	20	20	19	19	18	2	1
28	9.45249	43	9.47068	46	0.52932	9.98181	4	32	28	22	22	21	21	21	20	20	19	2	1
29	9.45292	42	9.47114	46	0.52886	9.98177	3	31	29	23	23	22	22	21	21	20	20	2	1
30	9.45334	43	9.47160	47	0.52840	9.98174	4	30	30	24	23	23	22	22	21	21	20	2	1
31	9.45377	42	9.47207	46	0.52793	9.98170	4	29	31	25	24	24	23	23	22	22	21	2	2
32	9.45419	43	9.47253	46	0.52747	9.98166	4	28	32	26	25	25	24	23	23	22	22	2	2
33	9.45462	42	9.47299	47	0.52701	9.98162	3	27	33	26	26	25	25	24	24	23	23	2	2
34	9.45504	43	9.47346	46	0.52654	9.98159	4	26	34	27	27	26	25	25	24	24	23	2	2
35	9.45547	42	9.47392	46	0.52608	9.98155	4	25	35	28	27	27	26	26	25	24	24	2	2
36	9.45589	43	9.47438	46	0.52562	9.98151	4	24	36	29	28	28	27	26	26	25	25	2	2
37	9.45632	42	9.47484	46	0.52516	9.98147	4	23	37	30	29	28	28	27	27	26	25	2	2
38	9.45674	42	9.47530	46	0.52470	9.98144	4	22	38	30	30	29	28	28	27	27	26	3	2
39	9.45716	42	9.47576	46	0.52424	9.98140	4	21	39	31	31	30	29	29	28	27	27	3	2
40	9.45758	43	9.47622	46	0.52378	9.98136	4	20	40	32	31	31	30	29	29	28	27	3	2
41	9.45801	42	9.47668	46	0.52332	9.98132	3	19	41	33	32	31	31	30	29	29	28	3	2
42	9.45843	42	9.47714	46	0.52286	9.98129	4	18	42	34	33	32	31	31	30	29	29	3	2
43	9.45885	42	9.47760	46	0.52240	9.98125	4	17	43	34	34	33	32	32	31	30	29	3	2
44	9.45927	42	9.47806	46	0.52194	9.98121	4	16	44	35	34	34	33	32	32	31	30	3	2
45	9.45969	42	9.47852	45	0.52148	9.98117	4	15	45	36	35	34	34	33	32	31	31	3	2
46	9.46011	42	9.47897	46	0.52103	9.98113	3	14	46	37	36	35	34	34	33	32	31	3	2
47	9.46053	42	9.47943	46	0.52057	9.98110	4	13	47	38	37	36	35	34	34	33	32	3	2
48	9.46095	41	9.47989	46	0.52011	9.98106	4	12	48	38	38	37	36	35	34	34	33	3	2
49	9.46136	42	9.48035	45	0.51965	9.98102	4	11	49	39	38	38	37	36	35	34	33	3	2
50	9.46178	42	9.48080	46	0.51920	9.98098	4	10	50	40	39	38	37	37	36	35	34	3	2
51	9.46220	42	9.48126	45	0.51874	9.98094	4	9	51	41	40	39	38	37	37	36	35	3	3
52	9.46262	41	9.48171	46	0.51829	9.98090	3	8	52	42	41	40	39	38	37	36	36	3	3
53	9.46303	42	9.48217	45	0.51783	9.98087	4	7	53	42	42	41	40	39	38	37	36	4	3
54	9.46345	41	9.48262	45	0.51738	9.98083	4	6	54	43	42	41	40	40	39	38	37	4	3
55	9.46386	42	9.48307	46	0.51693	9.98079	4	5	55	44	43	42	41	40	39	38	38	4	3
56	9.46428	41	9.48353	45	0.51647	9.98075	4	4	56	45	44	43	42	41	40	39	38	4	3
57	9.46469	42	9.48398	45	0.51602	9.98071	4	3	57	46	45	44	43	42	41	40	39	4	3
58	9.46511	41	9.48443	46	0.51557	9.98067	4	2	58	46	45	44	43	43	42	41	40	4	3
59	9.46552	42	9.48489	45	0.51511	9.98063	3	1	59	47	46	45	44	43	42	41	40	4	3
60	9.46594	42	9.48534	45	0.51466	9.98060	3	0	60	48	47	46	45	44	43	42	41	4	3
	Cos	d.	Cotg	d.c	Tang	Sin	d.			P. P.									

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	Sin	d.	Tang	d.c	Cotg	Cos	d.			P. P.										
0	9.46594	41	9.48534	45	0.51466	9.98060	4	60	45	44	43	42	41	40	39	5	4	3		
1	9.46635	41	9.48579	45	0.51421	9.98056	4	59	1	1	1	1	1	1	1	0	0	0		
2	9.46676	41	9.48624	45	0.51376	9.98052	4	58	1	1	1	1	1	1	1	0	0	0		
3	9.46717	41	9.48669	45	0.51331	9.98048	4	57	2	2	2	2	2	2	2	0	0	0		
4	9.46758	42	9.48714	45	0.51286	9.98044	4	56	3	3	3	3	3	3	3	0	0	0		
5	9.46800	41	9.48759	45	0.51241	9.98040	4	55	4	4	4	3	3	3	3	0	0	0		
6	9.46841	41	9.48804	45	0.51196	9.98036	3	54	4	4	4	4	4	4	4	0	0	0		
7	9.46882	41	9.48849	45	0.51151	9.98033	4	53	5	5	5	5	5	5	5	1	0	0		
8	9.46923	41	9.48894	45	0.51106	9.98029	4	52	6	6	6	6	5	5	5	1	1	0		
9	9.46964	41	9.48939	45	0.51061	9.98025	4	51	7	7	6	6	6	6	6	1	1	0		
10	9.47005	40	9.48984	45	0.51016	9.98021	4	50	7	7	7	7	7	7	6	1	1	0		
11	9.47045	41	9.49029	44	0.50971	9.98017	4	49	8	8	8	8	8	7	7	1	1	1		
12	9.47086	41	9.49073	45	0.50927	9.98013	4	48	9	9	9	8	8	8	8	1	1	1		
13	9.47127	41	9.49118	45	0.50882	9.98009	4	47	10	10	9	9	9	9	8	1	1	1		
14	9.47168	41	9.49163	44	0.50837	9.98005	4	46	10	10	10	10	10	9	9	1	1	1		
15	9.47209	40	9.49207	45	0.50793	9.98001	4	45	11	11	11	10	10	10	10	1	1	1		
16	9.47249	41	9.49252	44	0.50748	9.97997	4	44	12	12	11	11	11	11	10	1	1	1		
17	9.47290	40	9.49296	45	0.50704	9.97993	4	43	13	12	12	12	12	11	11	1	1	1		
18	9.47330	41	9.49341	44	0.50659	9.97989	3	42	13	13	13	13	12	12	12	1	1	1		
19	9.47371	40	9.49385	45	0.50615	9.97986	4	41	14	14	14	13	13	13	12	2	1	1		
20	9.47411	41	9.49430	44	0.50570	9.97982	4	40	15	15	14	14	14	13	13	2	1	1		
21	9.47452	40	9.49474	45	0.50526	9.97978	4	39	16	15	15	15	14	14	14	2	1	1		
22	9.47492	41	9.49519	44	0.50481	9.97974	4	38	16	16	16	15	15	15	14	2	1	1		
23	9.47533	40	9.49563	44	0.50437	9.97970	4	37	17	17	16	16	16	15	15	2	2	1		
24	9.47573	40	9.49607	45	0.50393	9.97966	4	36	18	18	17	17	16	16	16	2	2	1		
25	9.47613	41	9.49652	44	0.50348	9.97962	4	35	19	18	18	17	17	17	16	2	2	1		
26	9.47654	40	9.49696	44	0.50304	9.97958	4	34	19	19	19	18	18	17	17	2	2	1		
27	9.47694	40	9.49740	44	0.50260	9.97954	4	33	20	20	19	19	18	18	18	2	2	1		
28	9.47734	40	9.49784	44	0.50216	9.97950	4	32	21	21	20	20	19	19	18	2	2	1		
29	9.47774	40	9.49828	44	0.50172	9.97946	4	31	22	21	21	20	20	19	19	2	2	1		
30	9.47814	40	9.49872	44	0.50128	9.97942	4	30	22	22	21	21	20	20	19	2	2	1		
31	9.47854	40	9.49916	44	0.50084	9.97938	4	29	23	23	22	22	21	21	20	3	2	2		
32	9.47894	40	9.49960	44	0.50040	9.97934	4	28	24	23	23	22	22	21	21	3	2	2		
33	9.47934	40	9.50004	44	0.49996	9.97930	4	27	25	24	24	23	23	22	21	3	2	2		
34	9.47974	40	9.50048	44	0.49952	9.97926	4	26	25	25	24	24	23	23	22	3	2	2		
35	9.48014	40	9.50092	44	0.49908	9.97922	4	25	26	26	25	24	24	23	23	3	2	2		
36	9.48054	40	9.50136	44	0.49864	9.97918	4	24	27	26	26	25	25	24	23	3	2	2		
37	9.48094	39	9.50180	43	0.49820	9.97914	4	23	28	27	27	26	25	25	24	3	2	2		
38	9.48133	40	9.50223	44	0.49777	9.97910	4	22	28	28	27	27	26	25	25	3	3	2		
39	9.48173	40	9.50267	44	0.49733	9.97906	4	21	29	29	28	27	27	26	25	3	3	2		
40	9.48213	39	9.50311	44	0.49689	9.97902	4	20	30	29	29	28	27	27	26	3	3	2		
41	9.48252	40	9.50355	43	0.49645	9.97898	4	19	31	30	29	29	28	27	27	3	3	2		
42	9.48292	40	9.50398	44	0.49602	9.97894	4	18	31	31	30	29	29	28	27	3	3	2		
43	9.48332	39	9.50442	43	0.49558	9.97890	4	17	32	32	31	30	29	29	28	4	3	2		
44	9.48371	40	9.50485	44	0.49515	9.97886	4	16	33	32	32	31	30	29	29	4	3	2		
45	9.48411	39	9.50529	43	0.49471	9.97882	4	15	34	33	32	31	31	30	29	4	3	2		
46	9.48450	40	9.50572	44	0.49428	9.97878	4	14	34	34	33	32	31	31	30	4	3	2		
47	9.48490	39	9.50616	43	0.49384	9.97874	4	13	35	34	34	33	32	31	31	4	3	2		
48	9.48529	39	9.50659	44	0.49341	9.97870	4	12	36	35	34	34	33	32	31	4	3	2		
49	9.48568	39	9.50703	43	0.49297	9.97866	5	11	37	36	35	34	33	33	32	4	3	2		
50	9.48607	40	9.50746	43	0.49254	9.97861	4	10	37	37	36	35	34	33	32	4	3	2		
51	9.48647	39	9.50789	44	0.49211	9.97857	4	9	38	37	37	36	35	34	33	4	3	3		
52	9.48686	39	9.50833	43	0.49167	9.97853	4	8	39	38	37	36	36	35	34	4	3	3		
53	9.48725	39	9.50876	43	0.49124	9.97849	4	7	40	39	38	37	36	35	34	4	4	3		
54	9.48764	39	9.50919	43	0.49081	9.97845	4	6	40	40	39	38	37	36	35	4	4	3		
55	9.48803	39	9.50962	43	0.49038	9.97841	4	5	41	40	39	38	38	37	36	5	4	3		
56	9.48842	39	9.51005	43	0.48995	9.97837	4	4	42	41	40	39	38	37	36	5	4	3		
57	9.48881	39	9.51048	44	0.48952	9.97833	4	3	43	42	41	40	39	38	37	5	4	3		
58	9.48920	39	9.51092	43	0.48908	9.97829	4	2	43	43	42	41	40	39	38	5	4	3		
59	9.48959	39	9.51135	43	0.48865	9.97825	4	1	44	43	42	41	40	39	38	5	4	3		
60	9.48998	39	9.51178	43	0.48822	9.97821	0	0	45	44	43	42	41	40	39	5	4	3		
	Cos	d.	Cotg	d.c	Tang	Sin	d.			P. P.										

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										P. P.									
	Sin	d.	Tang	d.c	Cotg	Cos	d.		"	43	42	41	40	39	38	37	36	35	34
0	9.48998	39	9.51178	43	0.48822	9.97821	4	60	1	1	1	1	1	1	1	1	1	0	0
1	9.49037	39	9.51221	43	0.48779	9.97817	5	59	2	1	1	1	1	1	1	1	1	0	0
2	9.49076	39	9.51264	42	0.48736	9.97812	4	58	3	2	2	2	2	2	2	2	2	0	0
3	9.49115	38	9.51306	43	0.48694	9.97808	4	57	4	3	3	3	3	3	3	2	2	0	0
4	9.49153	39	9.51349	43	0.48651	9.97804	4	56	5	4	3	3	3	3	3	3	3	0	0
5	9.49192	39	9.51392	43	0.48608	9.97800	4	55	6	4	4	4	4	4	4	4	4	0	0
6	9.49231	38	9.51435	43	0.48565	9.97796	4	54	7	5	5	5	5	5	4	4	4	1	0
7	9.49269	39	9.51478	42	0.48522	9.97792	4	53	8	6	6	5	5	5	5	5	5	1	1
8	9.49308	39	9.51520	43	0.48480	9.97788	4	52	9	6	6	6	6	6	6	6	5	1	1
9	9.49347	38	9.51563	43	0.48437	9.97784	5	51	10	7	7	7	7	6	6	6	6	1	1
10	9.49385	39	9.51606	42	0.48394	9.97779	4	50	11	8	8	8	7	7	7	7	7	1	1
11	9.49424	38	9.51648	43	0.48352	9.97775	4	49	12	9	8	8	8	8	8	7	7	1	1
12	9.49462	38	9.51691	43	0.48309	9.97771	4	48	13	9	9	9	9	8	8	8	8	1	1
13	9.49500	39	9.51734	42	0.48266	9.97767	4	47	14	10	10	10	9	9	9	9	8	1	1
14	9.49539	38	9.51776	43	0.48224	9.97763	4	46	15	11	10	10	10	10	9	9	9	1	1
15	9.49577	38	9.51819	42	0.48181	9.97759	5	45	16	11	11	11	11	10	10	10	10	1	1
16	9.49615	39	9.51861	42	0.48139	9.97754	4	44	17	12	12	12	11	11	11	10	10	1	1
17	9.49654	38	9.51903	43	0.48097	9.97750	4	43	18	13	13	12	12	12	11	11	11	1	1
18	9.49692	38	9.51946	42	0.48054	9.97746	4	42	19	14	13	13	13	12	12	12	11	2	1
19	9.49730	38	9.51988	43	0.48012	9.97742	4	41	20	14	14	14	13	13	13	12	12	2	1
20	9.49768	38	9.52031	42	0.47969	9.97738	4	40	21	15	15	14	14	14	13	13	13	2	1
21	9.49806	38	9.52073	42	0.47927	9.97734	5	39	22	16	15	15	15	14	14	14	13	2	1
22	9.49844	38	9.52115	42	0.47885	9.97729	4	38	23	16	16	16	15	15	15	14	14	2	2
23	9.49882	38	9.52157	43	0.47843	9.97725	4	37	24	17	17	16	16	16	15	15	14	2	2
24	9.49920	38	9.52200	42	0.47800	9.97721	4	36	25	18	17	17	17	16	16	15	15	2	2
25	9.49958	38	9.52242	42	0.47758	9.97717	4	35	26	19	18	18	17	17	16	16	16	2	2
26	9.49996	38	9.52284	42	0.47716	9.97713	5	34	27	19	19	18	18	18	17	17	16	2	2
27	9.50034	38	9.52326	42	0.47674	9.97708	4	33	28	20	20	19	19	18	18	17	17	2	2
28	9.50072	38	9.52368	42	0.47632	9.97704	4	32	29	21	20	20	19	19	18	18	17	2	2
29	9.50110	38	9.52410	42	0.47590	9.97700	4	31	30	21	21	20	20	19	19	18	18	2	2
30	9.50148	37	9.52452	42	0.47548	9.97696	5	30	31	22	22	21	21	20	20	19	19	3	2
31	9.50185	38	9.52494	42	0.47506	9.97691	4	29	32	23	22	22	21	21	20	20	19	3	2
32	9.50223	38	9.52536	42	0.47464	9.97687	4	28	33	24	23	23	22	21	21	20	20	3	2
33	9.50261	37	9.52578	42	0.47422	9.97683	4	27	34	24	24	23	23	22	22	21	20	3	2
34	9.50298	38	9.52620	41	0.47380	9.97679	5	26	35	25	24	24	23	23	22	22	21	3	2
35	9.50336	38	9.52661	42	0.47339	9.97674	4	25	36	26	25	25	24	23	23	22	22	3	2
36	9.50374	37	9.52703	42	0.47297	9.97670	4	24	37	27	26	25	25	24	23	23	22	3	2
37	9.50411	38	9.52745	42	0.47255	9.97666	4	23	38	27	27	26	25	25	24	23	23	3	2
38	9.50449	37	9.52787	42	0.47213	9.97662	5	22	39	28	27	27	26	25	25	24	23	3	3
39	9.50486	37	9.52829	41	0.47171	9.97657	4	21	40	29	28	27	27	26	25	25	24	3	3
40	9.50523	38	9.52870	42	0.47130	9.97653	4	20	41	29	29	28	27	27	26	25	25	3	3
41	9.50561	37	9.52912	41	0.47088	9.97649	4	19	42	30	29	29	28	27	27	26	25	3	3
42	9.50598	37	9.52953	42	0.47047	9.97645	5	18	43	31	30	29	29	28	27	27	26	4	3
43	9.50635	38	9.52995	42	0.47005	9.97640	4	17	44	32	31	30	29	29	28	27	26	4	3
44	9.50673	37	9.53037	41	0.46963	9.97636	4	16	45	32	31	31	30	29	28	28	27	4	3
45	9.50710	37	9.53078	42	0.46922	9.97632	4	15	46	33	32	31	31	30	29	28	28	4	3
46	9.50747	37	9.53120	41	0.46880	9.97628	5	14	47	34	33	32	31	31	30	29	28	4	3
47	9.50784	37	9.53161	41	0.46839	9.97623	4	13	48	34	34	33	32	31	30	30	29	4	3
48	9.50821	37	9.53202	42	0.46798	9.97619	4	12	49	35	34	33	33	32	31	30	29	4	3
49	9.50858	38	9.53244	41	0.46756	9.97615	5	11	50	36	35	34	33	32	32	31	30	4	3
50	9.50896	37	9.53285	42	0.46715	9.97610	4	10	51	37	36	35	34	33	32	31	31	4	3
51	9.50933	37	9.53327	41	0.46673	9.97606	4	9	52	37	36	36	35	34	33	32	31	4	3
52	9.50970	37	9.53368	41	0.46632	9.97602	5	8	53	38	37	36	35	34	34	33	32	4	4
53	9.51007	36	9.53409	41	0.46591	9.97597	4	7	54	39	38	37	36	35	34	33	32	4	4
54	9.51043	37	9.53450	42	0.46550	9.97593	4	6	55	39	38	38	37	36	35	34	33	5	4
55	9.51080	37	9.53492	41	0.46508	9.97589	5	5	56	40	39	38	37	36	35	35	34	5	4
56	9.51117	37	9.53533	41	0.46467	9.97584	4	4	57	41	40	39	38	37	36	35	34	5	4
57	9.51154	37	9.53574	41	0.46426	9.97580	4	3	58	42	41	40	39	38	37	36	35	5	4
58	9.51191	36	9.53615	41	0.46385	9.97576	5	2	59	42	41	40	39	38	37	36	35	5	4
59	9.51227	37	9.53656	41	0.46344	9.97571	4	1	60	43	42	41	40	39	38	37	36	5	4
60	9.51264		9.53697		0.46303	9.97567	0												
	Cos	d.	Cotg	d.c	Tang	Sin	d.		"	P. P.									

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°	Sin	d.	Tang	d.c	Cotg	Cos	d.	°	"	P. P.									
										41	40	39	37	36	35	34	5	4	
0	9.51264	37	9.53697	41	0.46303	9.97567	4	60	I	I	I	I	I	I	I	I	O	O	
1	9.51301	37	9.53738	41	0.46262	9.97563	4	59	I	I	I	I	I	I	I	I	O	O	
2	9.51338	36	9.53779	41	0.46221	9.97558	5	58	2	2	2	2	2	2	2	2	O	O	
3	9.51374	37	9.53820	41	0.46180	9.97554	4	57	3	3	3	3	3	3	3	3	O	O	
4	9.51411	36	9.53861	41	0.46139	9.97550	5	56	3	3	3	3	3	3	3	3	O	O	
5	9.51447	37	9.53902	41	0.46098	9.97545	4	55	4	4	4	4	4	4	4	4	O	O	
6	9.51484	36	9.53943	41	0.46057	9.97541	5	54	5	5	5	5	5	5	5	5	I	O	
7	9.51520	37	9.53984	41	0.46016	9.97536	4	53	5	5	5	5	5	5	5	5	I	I	
8	9.51557	36	9.54025	40	0.45975	9.97532	4	52	6	6	6	6	6	6	6	6	I	I	
9	9.51593	36	9.54065	41	0.45935	9.97528	5	51	7	7	7	7	7	7	7	7	I	I	
10	9.51629	37	9.54106	41	0.45894	9.97523	4	50	8	8	8	8	8	8	8	8	I	I	
11	9.51666	36	9.54147	40	0.45853	9.97519	4	49	8	8	8	8	8	8	8	8	I	I	
12	9.51702	36	9.54187	41	0.45813	9.97515	5	48	9	9	9	9	9	9	9	9	I	I	
13	9.51738	36	9.54228	41	0.45772	9.97510	4	47	10	9	9	9	9	9	9	9	I	I	
14	9.51774	37	9.54269	40	0.45731	9.97506	5	46	10	10	10	10	10	10	10	10	I	I	
15	9.51811	36	9.54309	41	0.45691	9.97501	4	45	11	11	11	11	11	11	11	11	I	I	
16	9.51847	36	9.54350	40	0.45650	9.97497	5	44	12	11	11	11	11	11	11	11	I	I	
17	9.51883	36	9.54390	41	0.45610	9.97492	4	43	12	12	12	12	12	12	12	12	I	I	
18	9.51919	36	9.54431	40	0.45569	9.97488	4	42	13	13	13	13	13	13	13	13	2	I	
19	9.51955	36	9.54471	41	0.45529	9.97484	5	41	14	13	13	13	13	13	13	13	2	I	
20	9.51991	36	9.54512	40	0.45488	9.97479	4	40	14	14	14	14	14	14	14	14	2	I	
21	9.52027	36	9.54552	41	0.45448	9.97475	5	39	15	15	15	15	15	15	15	15	2	I	
22	9.52063	36	9.54593	40	0.45407	9.97470	4	38	16	15	15	15	15	15	15	15	2	I	
23	9.52099	36	9.54633	40	0.45367	9.97466	5	37	16	16	16	16	16	16	16	16	2	2	
24	9.52135	36	9.54673	41	0.45327	9.97461	4	36	17	17	17	17	17	17	17	17	2	2	
25	9.52171	36	9.54714	40	0.45286	9.97457	4	35	18	17	17	17	17	17	17	17	2	2	
26	9.52207	35	9.54754	40	0.45246	9.97453	5	34	18	18	18	18	18	18	18	18	2	2	
27	9.52242	36	9.54794	41	0.45206	9.97448	4	33	19	19	19	19	19	19	19	19	2	2	
28	9.52278	36	9.54835	40	0.45165	9.97444	5	32	20	19	19	19	19	19	19	19	2	2	
29	9.52314	36	9.54875	40	0.45125	9.97439	4	31	20	20	20	20	20	20	20	20	2	2	
30	9.52350	35	9.54915	40	0.45085	9.97435	5	30	21	21	21	21	21	21	21	21	3	2	
31	9.52385	36	9.54955	40	0.45045	9.97430	4	29	22	21	21	21	21	21	21	21	3	2	
32	9.52421	35	9.54995	40	0.45005	9.97426	5	28	23	22	22	22	22	22	22	22	3	2	
33	9.52456	36	9.55035	40	0.44965	9.97421	4	27	23	23	23	23	23	23	23	23	3	2	
34	9.52492	35	9.55075	40	0.44925	9.97417	5	26	24	23	23	23	23	23	23	23	3	2	
35	9.52527	36	9.55115	40	0.44885	9.97412	4	25	25	24	24	24	24	24	24	24	3	2	
36	9.52563	35	9.55155	40	0.44845	9.97408	5	24	26	25	25	25	25	25	25	25	3	2	
37	9.52598	36	9.55195	40	0.44805	9.97403	4	23	27	26	26	26	26	26	26	26	3	2	
38	9.52634	35	9.55235	40	0.44765	9.97399	5	22	27	27	27	27	27	27	27	27	3	3	
39	9.52669	36	9.55275	40	0.44725	9.97394	4	21	28	27	27	27	27	27	27	27	3	3	
40	9.52705	35	9.55315	40	0.44685	9.97390	5	20	28	28	28	28	28	28	28	28	3	3	
41	9.52740	35	9.55355	40	0.44645	9.97385	4	19	29	28	28	28	28	28	28	28	3	3	
42	9.52775	36	9.55395	39	0.44605	9.97381	5	18	29	29	29	29	29	29	29	29	4	3	
43	9.52811	35	9.55434	40	0.44566	9.97376	4	17	30	29	29	29	29	29	29	29	4	3	
44	9.52846	35	9.55474	40	0.44526	9.97372	5	16	31	30	30	30	30	30	30	30	4	3	
45	9.52881	35	9.55514	40	0.44486	9.97367	4	15	31	31	31	31	31	31	31	31	4	3	
46	9.52916	35	9.55554	39	0.44446	9.97363	5	14	32	31	31	31	31	31	31	31	4	3	
47	9.52951	35	9.55593	40	0.44407	9.97358	4	13	33	32	32	32	32	32	32	32	4	3	
48	9.52986	35	9.55633	40	0.44367	9.97353	5	12	33	33	33	33	33	33	33	33	4	3	
49	9.53021	35	9.55673	39	0.44327	9.97349	4	11	34	33	33	33	33	33	33	33	4	3	
50	9.53056	36	9.55712	40	0.44288	9.97344	4	10	35	34	34	34	34	34	34	34	4	3	
51	9.53092	34	9.55752	39	0.44248	9.97340	5	9	36	35	35	35	35	35	35	35	4	3	
52	9.53126	35	9.55791	40	0.44209	9.97335	4	8	36	36	36	36	36	36	36	36	4	4	
53	9.53161	35	9.55831	39	0.44169	9.97331	5	7	37	36	36	36	36	36	36	36	4	4	
54	9.53196	35	9.55870	40	0.44130	9.97326	4	6	38	37	37	37	37	37	37	37	5	4	
55	9.53231	35	9.55910	39	0.44090	9.97322	5	5	38	37	37	37	37	37	37	37	5	4	
56	9.53266	35	9.55949	40	0.44051	9.97317	4	4	39	38	38	38	38	38	38	38	5	4	
57	9.53301	35	9.55989	39	0.44011	9.97312	5	3	40	39	39	39	39	39	39	39	5	4	
58	9.53336	34	9.56028	39	0.43972	9.97308	4	2	40	39	39	39	39	39	39	39	5	4	
59	9.53370	35	9.56067	40	0.43933	9.97303	5	1	41	40	40	40	40	40	40	40	5	4	
60	9.53405		9.56107		0.43893	9.97299	4	0	41	40	39	37	36	35	34	34	5	4	
										P. P.									
°	Cos	d.	Cotg	d.c	Tang	Sin	d.	°	"										

°	Sin		d.	Tang		d.c	Cotg	Cos		d.	°	P. P.									
												40	39	38	37	36	35	34	33	32	31
0	9.53405	35		9.56107	39		0.43893	9.97299	5	60		1	1	1	1	1	1	1	1	0	0
1	9.53440	35		9.56146	39		0.43854	9.97294	5	59	I	1	1	1	1	1	1	1	1	0	0
2	9.53475	34		9.56185	39		0.43815	9.97289	4	58	2	1	1	1	1	1	1	1	1	0	0
3	9.53509	35		9.56224	40		0.43776	9.97285	5	57	3	2	2	2	2	2	2	2	2	0	0
4	9.53544	34		9.56264	39		0.43736	9.97280	4	56	4	3	3	3	2	2	2	2	2	0	0
5	9.53578	35		9.56303	39		0.43697	9.97276	5	55	5	3	3	3	3	3	3	3	3	0	0
6	9.53613	34		9.56342	39		0.43658	9.97271	5	54	6	4	4	4	4	3	3	3	3	0	0
7	9.53647	35		9.56381	39		0.43619	9.97266	4	53	7	5	5	4	4	4	4	4	4	1	0
8	9.53682	34		9.56420	39		0.43580	9.97262	5	52	8	5	5	5	5	5	5	5	4	1	1
9	9.53716	35		9.56459	39		0.43541	9.97257	5	51	9	6	6	6	6	5	5	5	5	1	1
10	9.53751	34		9.56498	39		0.43502	9.97252	4	50	10	7	6	6	6	6	6	6	5	1	1
11	9.53785	34		9.56537	39		0.43463	9.97248	5	49	11	7	7	7	7	6	6	6	6	1	1
12	9.53819	35		9.56576	39		0.43424	9.97243	5	48	12	8	8	8	7	7	7	7	7	1	1
13	9.53854	34		9.56615	39		0.43385	9.97238	4	47	13	9	8	8	8	8	8	8	7	1	1
14	9.53888	34		9.56654	39		0.43346	9.97234	5	46	14	9	9	9	9	8	8	8	8	1	1
15	9.53922	35		9.56693	39		0.43307	9.97229	5	45	15	10	10	9	9	9	8	8	8	1	1
16	9.53957	34		9.56732	39		0.43268	9.97224	4	44	16	11	10	10	10	9	9	9	9	1	1
17	9.53991	34		9.56771	39		0.43229	9.97220	5	43	17	11	11	11	10	10	10	10	9	1	1
18	9.54025	34		9.56810	39		0.43190	9.97215	5	42	18	12	12	11	11	10	10	10	10	1	1
19	9.54059	34		9.56849	38		0.43151	9.97210	4	41	19	13	12	12	12	11	11	11	10	2	1
20	9.54093	34		9.56887	39		0.43113	9.97206	5	40	20	13	13	13	12	12	11	11	11	2	1
21	9.54127	34		9.56926	39		0.43074	9.97201	5	39	21	14	14	13	13	12	12	12	12	2	1
22	9.54161	34		9.56965	39		0.43035	9.97196	4	38	22	15	14	14	14	13	12	12	12	2	1
23	9.54195	34		9.57004	38		0.42996	9.97192	5	37	23	15	15	15	14	13	13	13	13	2	2
24	9.54229	34		9.57042	39		0.42958	9.97187	5	36	24	16	16	15	15	14	14	13	13	2	2
25	9.54263	34		9.57081	39		0.42919	9.97182	4	35	25	17	16	16	15	15	14	14	14	2	2
26	9.54297	34		9.57120	38		0.42880	9.97178	5	34	26	17	17	16	16	15	15	15	14	2	2
27	9.54331	34		9.57158	39		0.42842	9.97173	5	33	27	18	18	17	17	16	15	15	15	2	2
28	9.54365	34		9.57197	38		0.42803	9.97168	5	32	28	19	18	18	17	16	16	16	15	2	2
29	9.54399	34		9.57235	39		0.42765	9.97163	4	31	29	19	19	18	18	17	16	16	16	2	2
30	9.54433	33		9.57274	38		0.42726	9.97159	5	30	30	20	19	19	18	17	17	16	16	2	2
31	9.54466	34		9.57312	39		0.42688	9.97154	5	29	31	21	20	20	19	18	18	17	17	3	2
32	9.54500	34		9.57351	38		0.42649	9.97149	4	28	32	21	21	20	20	19	18	18	18	3	2
33	9.54534	33		9.57389	39		0.42611	9.97145	5	27	33	22	21	21	20	19	19	18	18	3	2
34	9.54567	34		9.57428	38		0.42572	9.97140	5	26	34	23	22	22	21	20	19	19	19	3	2
35	9.54601	34		9.57466	38		0.42534	9.97135	5	25	35	23	23	22	22	20	20	19	19	3	2
36	9.54635	33		9.57504	39		0.42496	9.97130	4	24	36	24	23	23	22	21	20	20	20	3	2
37	9.54668	34		9.57543	38		0.42457	9.97126	5	23	37	25	24	23	23	22	21	20	20	3	2
38	9.54702	33		9.57581	38		0.42419	9.97121	5	22	38	25	25	24	23	22	22	21	21	3	3
39	9.54735	34		9.57619	39		0.42381	9.97116	5	21	39	26	25	25	24	23	22	21	21	3	3
40	9.54769	33		9.57658	38		0.42342	9.97111	4	20	40	27	26	25	25	23	23	22	22	3	3
41	9.54802	34		9.57696	38		0.42304	9.97107	5	19	41	27	27	26	25	24	23	23	23	3	3
42	9.54836	33		9.57734	38		0.42266	9.97102	5	18	42	28	27	27	26	24	24	23	23	3	3
43	9.54869	34		9.57772	38		0.42228	9.97097	5	17	43	29	28	27	27	25	24	24	24	4	3
44	9.54903	33		9.57810	39		0.42190	9.97092	5	16	44	29	29	28	27	26	25	24	24	4	3
45	9.54936	33		9.57849	38		0.42151	9.97087	4	15	45	30	29	28	28	26	25	25	25	4	3
46	9.54969	34		9.57887	38		0.42113	9.97083	5	14	46	31	30	29	28	27	26	25	25	4	3
47	9.55003	33		9.57925	38		0.42075	9.97078	5	13	47	31	31	30	29	27	27	26	26	4	3
48	9.55036	33		9.57963	38		0.42037	9.97073	5	12	48	32	31	30	30	28	27	26	26	4	3
49	9.55069	33		9.58001	38		0.41999	9.97068	5	11	49	33	32	31	30	29	28	27	27	4	3
50	9.55102	34		9.58039	38		0.41961	9.97063	4	10	50	33	32	32	31	29	28	27	27	4	3
51	9.55136	33		9.58077	38		0.41923	9.97059	5	9	51	34	33	32	31	30	29	28	28	4	3
52	9.55169	33		9.58115	38		0.41885	9.97054	5	8	52	35	34	33	32	30	29	29	29	4	3
53	9.55202	33		9.58153	38		0.41847	9.97049	5	7	53	35	34	34	33	31	30	29	29	4	4
54	9.55235	33		9.58191	38		0.41809	9.97044	5	6	54	36	35	34	33	31	31	30	30	4	4
55	9.55268	33		9.58229	38		0.41771	9.97039	4	5	55	37	36	35	34	32	31	30	30	5	4
56	9.55301	33		9.58267	37		0.41733	9.97035	5	4	56	37	36	35	35	33	32	31	31	5	4
57	9.55334	33		9.58304	38		0.41696	9.97030	5	3	57	38	37	36	35	33	32	31	31	5	4
58	9.55367	33		9.58342	38		0.41658	9.97025	5	2	58	39	38	37	36	34	33	32	32	5	4
59	9.55400	33		9.58380	38		0.41620	9.97020	5	1	59	39	38	37	36	34	33	32	32	5	4
60	9.55433			9.58418			0.41582	9.97015		0	60	40	39	38	37	35	34	33	33	5	4
°	Cos		d.	Cotg		d.c	Tang	Sin		d.	°	P. P.									

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,	Sin		d.	Tang		d.c	Cotg	Cos		d.	,	"	P. P.								
													38	37	36	35	34	33	32	31	30
0	9.55433		33	9.58418		37	0.41582	9.97015		5	60		1	1	1	1	1	1	1	1	1
1	9.55466		33	9.58455		37	0.41545	9.97010		5	59	1	1	1	1	1	1	1	1	1	1
2	9.55499		33	9.58493		38	0.41507	9.97005		5	58	2	1	1	1	1	1	1	1	1	1
3	9.55532		32	9.58531		38	0.41469	9.97001		5	57	3	2	2	2	2	2	2	2	2	2
4	9.55564		33	9.58569		37	0.41431	9.96996		5	56	4	3	2	2	2	2	2	2	2	2
5	9.55597		33	9.58606		38	0.41394	9.96991		5	55	5	3	3	3	3	3	3	3	3	3
6	9.55630		33	9.58644		37	0.41356	9.96986		5	54	6	4	4	4	3	3	3	3	3	3
7	9.55663		32	9.58681		38	0.41319	9.96981		5	53	7	4	4	4	4	4	4	4	4	4
8	9.55695		33	9.58719		38	0.41281	9.96976		5	52	8	5	5	5	4	4	4	4	4	4
9	9.55728		33	9.58757		37	0.41243	9.96971		5	51	9	6	6	5	5	5	5	5	5	5
10	9.55761		32	9.58794		38	0.41206	9.96966		4	50	10	6	6	6	5	5	5	5	5	5
11	9.55793		33	9.58832		37	0.41168	9.96962		5	49	11	7	7	7	6	6	6	6	6	6
12	9.55826		32	9.58869		38	0.41131	9.96957		5	48	12	8	7	7	7	6	6	6	6	6
13	9.55858		33	9.58907		37	0.41093	9.96952		5	47	13	8	8	8	7	7	7	7	7	7
14	9.55891		32	9.58944		37	0.41056	9.96947		5	46	14	9	9	8	8	7	7	7	7	7
15	9.55923		33	9.58981		38	0.41019	9.96942		5	45	15	9	9	9	8	8	8	8	8	8
16	9.55956		32	9.59019		37	0.40981	9.96937		5	44	16	10	10	10	9	9	8	8	8	8
17	9.55988		33	9.59056		38	0.40944	9.96932		5	43	17	11	10	10	9	9	9	9	9	9
18	9.56021		32	9.59094		37	0.40906	9.96927		5	42	18	11	11	11	10	10	9	9	9	9
19	9.56053		32	9.59131		37	0.40869	9.96922		5	41	19	12	12	11	10	10	10	10	10	10
20	9.56085		33	9.59168		37	0.40832	9.96917		5	40	20	13	12	12	11	11	10	10	10	10
21	9.56118		32	9.59205		38	0.40795	9.96912		5	39	21	13	13	13	12	11	11	11	11	11
22	9.56150		32	9.59243		37	0.40757	9.96907		4	38	22	14	14	13	12	12	11	11	11	11
23	9.56182		33	9.59280		37	0.40720	9.96903		5	37	23	15	14	14	13	12	12	12	12	12
24	9.56215		32	9.59317		37	0.40683	9.96898		5	36	24	15	15	14	13	13	12	12	12	12
25	9.56247		32	9.59354		37	0.40646	9.96893		5	35	25	16	15	15	14	13	13	13	13	13
26	9.56279		32	9.59391		38	0.40609	9.96888		5	34	26	16	16	16	14	14	13	3	2	2
27	9.56311		32	9.59429		37	0.40571	9.96883		5	33	27	17	17	16	15	14	14	3	2	2
28	9.56343		32	9.59466		37	0.40534	9.96878		5	32	28	18	17	17	15	15	14	3	2	2
29	9.56375		33	9.59503		37	0.40497	9.96873		5	31	29	18	18	17	16	15	15	3	2	2
30	9.56408		32	9.59540		37	0.40460	9.96868		5	30	30	19	18	18	16	16	15	3	2	2
31	9.56440		32	9.59577		37	0.40423	9.96863		5	29	31	20	19	19	17	17	16	3	3	2
32	9.56472		32	9.59614		37	0.40386	9.96858		5	28	32	20	20	19	18	17	17	3	3	2
33	9.56504		32	9.59651		37	0.40349	9.96853		5	27	33	21	20	20	18	18	17	3	3	2
34	9.56536		32	9.59688		37	0.40312	9.96848		5	26	34	22	21	20	19	18	18	3	3	2
35	9.56568		31	9.59725		37	0.40275	9.96843		5	25	35	22	22	21	19	19	18	3	3	2
36	9.56599		32	9.59762		37	0.40238	9.96838		5	24	36	23	22	22	20	19	19	4	3	2
37	9.56631		32	9.59799		36	0.40201	9.96833		5	23	37	23	23	22	20	20	19	4	3	2
38	9.56663		32	9.59835		37	0.40165	9.96828		5	22	38	24	23	23	21	20	20	4	3	3
39	9.56695		32	9.59872		37	0.40128	9.96823		5	21	39	25	24	23	21	21	20	4	3	3
40	9.56727		32	9.59909		37	0.40091	9.96818		5	20	40	25	25	24	22	21	21	4	3	3
41	9.56759		31	9.59946		37	0.40054	9.96813		5	19	41	26	25	25	23	22	21	4	3	3
42	9.56790		32	9.59983		36	0.40017	9.96808		5	18	42	27	26	25	23	22	22	4	3	3
43	9.56822		32	9.60019		37	0.39981	9.96803		5	17	43	27	27	26	24	23	22	4	4	3
44	9.56854		32	9.60056		37	0.39944	9.96798		5	16	44	28	27	26	24	23	23	4	4	3
45	9.56886		31	9.60093		37	0.39907	9.96793		5	15	45	28	28	27	25	24	23	4	4	3
46	9.56917		32	9.60130		36	0.39870	9.96788		5	14	46	29	28	28	25	25	24	5	4	3
47	9.56949		31	9.60166		37	0.39834	9.96783		5	13	47	30	29	28	26	25	24	5	4	3
48	9.56980		32	9.60203		37	0.39797	9.96778		6	12	48	30	30	29	26	26	25	5	4	3
49	9.57012		32	9.60240		36	0.39760	9.96772		5	11	49	31	30	29	27	26	25	5	4	3
50	9.57044		31	9.60276		37	0.39724	9.96767		5	10	50	32	31	30	27	27	26	5	4	3
51	9.57075		32	9.60313		36	0.39687	9.96762		5	9	51	32	31	31	28	27	26	5	4	3
52	9.57107		31	9.60349		37	0.39651	9.96757		5	8	52	33	32	31	29	28	27	5	4	3
53	9.57138		31	9.60386		36	0.39614	9.96752		5	7	53	34	33	32	29	28	27	5	4	4
54	9.57169		32	9.60422		37	0.39578	9.96747		5	6	54	34	33	32	30	29	28	5	4	4
55	9.57201		31	9.60459		36	0.39541	9.96742		5	5	55	35	34	33	30	29	28	5	5	4
56	9.57232		32	9.60495		37	0.39505	9.96737		5	4	56	35	35	34	31	30	29	6	5	4
57	9.57264		31	9.60532		36	0.39468	9.96732		5	3	57	36	35	34	31	30	29	6	5	4
58	9.57295		31	9.60568		37	0.39432	9.96727		5	2	58	37	36	35	32	31	30	6	5	4
59	9.57326		32	9.60605		36	0.39395	9.96722		5	1	59	37	36	35	32	31	30	6	5	4
60	9.57358			9.60641			0.39359	9.96717			0	60	38	37	36	33	32	31	6	5	4
,	Cos		d.	Cotg		d.c	Tang	Sin		d.	,	"	P. P.								

										P. P.									
	Sin	d.	Tang	d.c	Cotg	Cos	d.			37	36	35	32	31	30	29	6	5	
0	9.57358	31	9.60641	36	0.39359	9.96717	6	60	1	1	1	1	1	1	0	0	0	0	
1	9.57389	31	9.60677	37	0.39323	9.96711	5	59	2	1	1	1	1	1	1	1	0	0	
2	9.57420	31	9.60714	36	0.39286	9.96706	5	58	3	2	2	2	2	2	1	1	0	0	
3	9.57451	31	9.60750	36	0.39250	9.96701	5	57	4	2	2	2	2	2	2	2	0	0	
4	9.57482	32	9.60786	37	0.39214	9.96696	5	56	5	3	3	3	3	3	2	2	0	0	
5	9.57514	31	9.60823	36	0.39177	9.96691	5	55	6	4	4	3	3	3	3	3	1	0	
6	9.57545	31	9.60859	36	0.39141	9.96686	5	54	7	4	4	4	4	4	3	3	1	1	
7	9.57576	31	9.60895	36	0.39105	9.96681	5	53	8	5	5	5	4	4	4	4	1	1	
8	9.57607	31	9.60931	36	0.39069	9.96676	6	52	9	6	5	5	5	5	4	4	1	1	
9	9.57638	31	9.60967	37	0.39033	9.96670	5	51	10	6	6	6	5	5	5	5	1	1	
10	9.57669	31	9.61004	36	0.38996	9.96665	5	50	11	7	7	6	6	6	5	5	1	1	
11	9.57700	31	9.61040	36	0.38960	9.96660	5	49	12	7	7	7	6	6	6	6	1	1	
12	9.57731	31	9.61076	36	0.38924	9.96655	5	48	13	8	8	8	7	7	6	6	1	1	
13	9.57762	31	9.61112	36	0.38888	9.96650	5	47	14	9	8	8	7	7	7	7	1	1	
14	9.57793	31	9.61148	36	0.38852	9.96645	5	46	15	9	9	9	8	8	7	7	1	1	
15	9.57824	31	9.61184	36	0.38816	9.96640	6	45	16	10	10	9	9	8	8	8	2	1	
16	9.57855	30	9.61220	36	0.38780	9.96634	5	44	17	10	10	10	9	9	8	8	2	1	
17	9.57885	31	9.61256	36	0.38744	9.96629	5	43	18	11	11	10	10	9	9	9	2	1	
18	9.57916	31	9.61292	36	0.38708	9.96624	5	42	19	12	11	11	10	10	9	9	2	2	
19	9.57947	31	9.61328	36	0.38672	9.96619	5	41	20	12	12	12	11	10	10	10	2	2	
20	9.57978	30	9.61364	36	0.38636	9.96614	6	40	21	13	13	12	11	11	10	10	2	2	
21	9.58008	31	9.61400	36	0.38600	9.96608	5	39	22	14	13	13	12	11	11	11	2	2	
22	9.58039	31	9.61436	36	0.38564	9.96603	5	38	23	14	14	13	12	12	11	11	2	2	
23	9.58070	31	9.61472	36	0.38528	9.96598	5	37	24	15	14	14	13	12	12	12	2	2	
24	9.58101	30	9.61508	36	0.38492	9.96593	5	36	25	15	15	15	13	13	12	12	2	2	
25	9.58131	31	9.61544	35	0.38456	9.96588	6	35	26	16	16	15	14	13	13	13	3	2	
26	9.58162	30	9.61579	36	0.38421	9.96582	5	34	27	17	16	16	14	14	13	13	3	2	
27	9.58192	31	9.61615	36	0.38385	9.96577	5	33	28	17	17	16	15	14	14	14	3	2	
28	9.58223	30	9.61651	36	0.38349	9.96572	5	32	29	18	17	17	15	15	14	14	3	2	
29	9.58253	31	9.61687	35	0.38313	9.96567	5	31	30	18	18	17	16	15	15	14	3	2	
30	9.58284	30	9.61722	36	0.38278	9.96562	6	30	31	19	19	18	17	16	15	15	3	3	
31	9.58314	31	9.61758	36	0.38242	9.96556	5	29	32	20	19	19	17	17	16	15	3	3	
32	9.58345	30	9.61794	36	0.38206	9.96551	5	28	33	20	20	19	18	17	16	16	3	3	
33	9.58375	31	9.61830	35	0.38170	9.96546	5	27	34	21	20	20	18	18	17	16	3	3	
34	9.58406	30	9.61865	36	0.38135	9.96541	6	26	35	22	21	20	19	18	17	17	3	3	
35	9.58436	31	9.61901	35	0.38099	9.96535	5	25	36	22	22	21	19	19	18	17	4	3	
36	9.58467	30	9.61936	36	0.38064	9.96530	5	24	37	23	22	22	20	19	18	18	4	3	
37	9.58497	30	9.61972	36	0.38028	9.96525	5	23	38	23	23	22	20	20	19	18	4	3	
38	9.58527	30	9.62008	35	0.37992	9.96520	6	22	39	24	23	23	21	20	19	19	4	3	
39	9.58557	31	9.62043	36	0.37957	9.96514	5	21	40	25	24	23	21	21	20	19	4	3	
40	9.58588	30	9.62079	35	0.37921	9.96509	5	20	41	25	25	24	22	21	20	20	4	3	
41	9.58618	30	9.62114	36	0.37886	9.96504	6	19	42	26	25	24	22	22	21	20	4	3	
42	9.58648	30	9.62150	35	0.37850	9.96498	5	18	43	27	26	25	23	22	21	21	4	4	
43	9.58678	31	9.62185	36	0.37815	9.96493	5	17	44	27	26	26	23	23	22	21	4	4	
44	9.58709	30	9.62221	35	0.37779	9.96488	5	16	45	28	27	26	24	23	22	22	4	4	
45	9.58739	30	9.62256	36	0.37744	9.96483	6	15	46	28	28	27	25	24	23	22	5	4	
46	9.58769	30	9.62292	35	0.37708	9.96477	5	14	47	29	28	27	25	24	23	23	5	4	
47	9.58799	30	9.62327	35	0.37673	9.96472	5	13	48	30	29	28	26	25	24	23	5	4	
48	9.58829	30	9.62362	36	0.37638	9.96467	6	12	49	30	29	29	26	25	24	24	5	4	
49	9.58859	30	9.62398	35	0.37602	9.96461	5	11	50	31	30	29	27	26	25	24	5	4	
50	9.58889	30	9.62433	35	0.37567	9.96456	5	10	51	31	31	30	27	26	25	25	5	4	
51	9.58919	30	9.62468	36	0.37532	9.96451	6	9	52	32	31	30	28	27	26	25	5	4	
52	9.58949	30	9.62504	35	0.37496	9.96445	5	8	53	33	32	31	28	27	26	26	5	4	
53	9.58979	30	9.62539	35	0.37461	9.96440	5	7	54	33	32	31	29	28	27	26	5	4	
54	9.59009	30	9.62574	35	0.37426	9.96435	6	6	55	34	33	32	29	28	27	27	5	5	
55	9.59039	30	9.62609	36	0.37391	9.96429	5	5	56	35	34	33	30	29	28	27	6	5	
56	9.59069	29	9.62645	35	0.37355	9.96424	5	4	57	35	34	33	30	29	28	28	6	5	
57	9.59098	30	9.62680	35	0.37320	9.96419	6	3	58	36	35	34	31	30	29	28	6	5	
58	9.59128	30	9.62715	35	0.37285	9.96413	5	2	59	36	35	34	31	30	29	29	6	5	
59	9.59158	30	9.62750	35	0.37250	9.96408	5	1	60	37	36	35	32	31	30	29	6	5	
60	9.59188	30	9.62785	35	0.37215	9.96403	5	0											
	Cos	d.	Cotg	d.c	Tang	Sin	d.			P. P.									

°	Sin		d.	Tang		d.c	Cotg	Cos		d.	°	"	P. P.							
													36	35	34	33	29	28	6	5
0	9.59188		30	9.62785		35	0.37215	9.96403		6	60									
1	9.59218		29	9.62820		35	0.37180	9.96397		5	59	1	1	1	1	0	0	0	0	0
2	9.59247		30	9.62855		35	0.37145	9.96392		5	58	2	1	1	1	1	1	1	0	0
3	9.59277		30	9.62890		36	0.37110	9.96387		6	57	3	2	2	2	1	1	1	0	0
4	9.59307		29	9.62926		35	0.37074	9.96381		5	56	4	2	2	2	2	2	2	0	0
5	9.59336		30	9.62961		35	0.37039	9.96376		6	55	5	3	3	3	2	2	2	0	0
6	9.59366		30	9.62996		35	0.37004	9.96370		5	54	6	4	3	3	3	3	3	1	0
7	9.59396		29	9.63031		35	0.36969	9.96365		5	53	7	4	4	4	3	3	3	1	1
8	9.59425		30	9.63066		35	0.36934	9.96360		6	52	8	5	5	5	4	4	4	1	1
9	9.59455		29	9.63101		34	0.36899	9.96354		5	51	9	5	5	5	4	4	4	1	1
10	9.59484		30	9.63135		35	0.36865	9.96349		6	50	10	6	6	6	5	5	5	1	1
11	9.59514		29	9.63170		35	0.36830	9.96343		5	49	11	7	6	6	5	5	5	1	1
12	9.59543		30	9.63205		35	0.36795	9.96338		5	48	12	7	7	7	6	6	6	1	1
13	9.59573		29	9.63240		35	0.36760	9.96333		6	47	13	8	8	7	6	6	6	1	1
14	9.59602		30	9.63275		35	0.36725	9.96327		5	46	14	8	8	8	7	7	7	1	1
15	9.59632		29	9.63310		35	0.36690	9.96322		6	45	15	9	9	8	7	7	7	1	1
16	9.59661		29	9.63345		34	0.36655	9.96316		5	44	16	10	9	9	8	8	7	2	1
17	9.59690		30	9.63379		35	0.36621	9.96311		6	43	17	10	10	10	8	8	8	2	1
18	9.59720		29	9.63414		35	0.36586	9.96305		5	42	18	11	10	10	9	9	8	2	1
19	9.59749		29	9.63449		35	0.36551	9.96300		6	41	19	11	11	11	9	9	9	2	2
20	9.59778		30	9.63484		35	0.36516	9.96294		5	40	20	12	12	11	10	10	9	2	2
21	9.59808		29	9.63519		34	0.36481	9.96289		5	39	21	13	12	12	10	10	10	2	2
22	9.59837		29	9.63553		35	0.36447	9.96284		6	38	22	13	13	12	11	11	10	2	2
23	9.59866		29	9.63588		35	0.36412	9.96278		5	37	23	14	13	13	11	11	11	2	2
24	9.59895		29	9.63623		34	0.36377	9.96273		6	36	24	14	14	14	12	12	11	2	2
25	9.59924		30	9.63657		35	0.36343	9.96267		5	35	25	15	15	14	12	12	12	2	2
26	9.59954		29	9.63692		34	0.36308	9.96262		6	34	26	16	15	15	13	13	12	3	2
27	9.59983		29	9.63726		35	0.36274	9.96256		5	33	27	16	16	15	13	13	13	3	2
28	9.60012		29	9.63761		35	0.36239	9.96251		6	32	28	17	16	16	14	14	13	3	2
29	9.60041		29	9.63796		34	0.36204	9.96245		5	31	29	17	17	16	14	14	14	3	2
30	9.60070		29	9.63830		35	0.36170	9.96240		6	30	30	18	17	17	15	14	14	3	2
31	9.60099		29	9.63865		34	0.36135	9.96234		5	29	31	19	18	18	15	15	14	3	3
32	9.60128		29	9.63899		35	0.36101	9.96229		6	28	32	19	19	18	16	15	15	3	3
33	9.60157		29	9.63934		34	0.36066	9.96223		5	27	33	20	19	19	16	16	15	3	3
34	9.60186		29	9.63968		35	0.36032	9.96218		6	26	34	20	20	19	17	16	16	3	3
35	9.60215		29	9.64003		34	0.35997	9.96212		5	25	35	21	20	20	17	17	16	3	3
36	9.60244		29	9.64037		35	0.35963	9.96207		6	24	36	22	21	20	18	17	17	4	3
37	9.60273		29	9.64072		34	0.35928	9.96201		5	23	37	22	22	21	18	18	17	4	3
38	9.60302		29	9.64106		34	0.35894	9.96196		6	22	38	23	22	22	19	18	18	4	3
39	9.60331		28	9.64140		35	0.35860	9.96190		5	21	39	23	23	22	19	19	18	4	3
40	9.60359		29	9.64175		34	0.35825	9.96185		6	20	40	24	23	23	20	19	19	4	3
41	9.60388		29	9.64209		34	0.35791	9.96179		5	19	41	25	24	23	20	20	19	4	3
42	9.60417		29	9.64243		35	0.35757	9.96174		6	18	42	25	24	24	21	20	20	4	3
43	9.60446		28	9.64278		34	0.35722	9.96168		6	17	43	26	25	24	21	21	20	4	4
44	9.60474		29	9.64312		34	0.35688	9.96162		5	16	44	26	26	25	22	21	21	4	4
45	9.60503		29	9.64346		35	0.35654	9.96157		6	15	45	27	26	25	22	22	21	4	4
46	9.60532		29	9.64381		34	0.35619	9.96151		5	14	46	28	27	26	23	22	21	5	4
47	9.60561		28	9.64415		34	0.35585	9.96146		6	13	47	28	27	27	23	23	22	5	4
48	9.60589		29	9.64449		34	0.35551	9.96140		5	12	48	29	28	27	24	23	22	5	4
49	9.60618		28	9.64483		34	0.35517	9.96135		6	11	49	29	29	28	24	24	23	5	4
50	9.60646		29	9.64517		35	0.35483	9.96129		6	10	50	30	29	28	25	24	23	5	4
51	9.60675		29	9.64552		34	0.35448	9.96123		5	9	51	31	30	29	25	25	24	5	4
52	9.60704		28	9.64586		34	0.35414	9.96118		6	8	52	31	30	29	26	25	24	5	4
53	9.60732		29	9.64620		34	0.35380	9.96112		5	7	53	32	31	30	26	26	25	5	4
54	9.60761		28	9.64654		34	0.35346	9.96107		6	6	54	32	31	31	27	26	25	5	4
55	9.60789		29	9.64688		34	0.35312	9.96101		6	5	55	33	32	31	27	27	26	5	5
56	9.60818		28	9.64722		34	0.35278	9.96095		5	4	56	34	33	32	28	27	26	6	5
57	9.60846		29	9.64756		34	0.35244	9.96090		6	3	57	34	33	32	28	28	27	6	5
58	9.60875		28	9.64790		34	0.35210	9.96084		5	2	58	35	34	33	29	28	27	6	5
59	9.60903		28	9.64824		34	0.35176	9.96079		6	1	59	35	34	33	29	29	28	6	5
60	9.60931			9.64858			0.35142	9.96073			0	60	36	35	34	30	29	28	6	5
°	Cos		d.	Cotg		d.c	Tang	Sin		d.	°	"	P. P.							

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	Sin	d.	Tang	d.c	Cotg	Cos	d.			P. P.							
0	9.60931	29	9.64838	34	0.35142	9.96073	6	60	0	34	33	32	29	2	27	6	5
1	9.60960	28	9.64892	34	0.35108	9.96067	6	59	1	1	1	1	0	0	0	0	0
2	9.60988	28	9.64926	34	0.35074	9.96062	5	58	2	1	1	1	1	1	1	0	0
3	9.61016	29	9.64960	34	0.35040	9.96056	6	57	3	2	2	2	1	1	1	0	0
4	9.61045	28	9.64994	34	0.35006	9.96050	5	56	4	2	2	2	2	2	2	0	0
5	9.61073	28	9.65028	34	0.34972	9.96045	6	55	5	3	3	3	2	2	2	0	0
6	9.61101	28	9.65062	34	0.34938	9.96039	5	54	6	3	3	3	3	3	3	1	0
7	9.61129	29	9.65096	34	0.34904	9.96034	6	53	7	4	4	4	3	3	3	1	1
8	9.61158	28	9.65130	34	0.34870	9.96028	6	52	8	5	4	4	4	4	4	1	1
9	9.61186	28	9.65164	33	0.34836	9.96022	5	51	9	5	5	5	4	4	4	1	1
10	9.61214	28	9.65197	34	0.34803	9.96017	6	50	10	6	5	5	5	5	4	1	1
11	9.61242	28	9.65231	34	0.34769	9.96011	6	49	11	6	6	6	5	5	5	1	1
12	9.61270	28	9.65265	34	0.34735	9.96005	5	48	12	7	7	6	6	6	5	1	1
13	9.61298	28	9.65299	34	0.34701	9.96000	6	47	13	7	7	7	6	6	6	1	1
14	9.61326	28	9.65333	33	0.34667	9.95994	6	46	14	8	8	7	7	7	6	1	1
15	9.61354	28	9.65366	34	0.34634	9.95988	6	45	15	8	8	8	7	7	7	1	1
16	9.61382	29	9.65400	34	0.34600	9.95982	5	44	16	9	9	9	8	7	7	2	1
17	9.61411	27	9.65434	33	0.34566	9.95977	6	43	17	10	9	9	8	8	8	2	1
18	9.61438	28	9.65467	34	0.34533	9.95971	6	42	18	10	10	10	9	8	8	2	1
19	9.61466	28	9.65501	34	0.34499	9.95965	5	41	19	11	10	10	9	9	9	2	2
20	9.61494	28	9.65535	33	0.34465	9.95960	6	40	20	11	11	11	10	9	9	2	2
21	9.61522	28	9.65568	34	0.34432	9.95954	6	39	21	12	12	11	10	10	9	2	2
22	9.61550	28	9.65602	34	0.34398	9.95948	6	38	22	12	12	12	11	10	10	2	2
23	9.61578	28	9.65636	33	0.34364	9.95942	5	37	23	13	13	12	11	11	10	2	2
24	9.61606	28	9.65669	34	0.34331	9.95937	6	36	24	14	13	13	12	11	11	2	2
25	9.61634	28	9.65703	33	0.34297	9.95931	6	35	25	14	14	13	12	12	11	2	2
26	9.61662	27	9.65736	34	0.34264	9.95925	5	34	26	15	14	14	13	12	12	3	2
27	9.61689	28	9.65770	33	0.34230	9.95920	6	33	27	15	15	14	13	13	12	3	2
28	9.61717	28	9.65803	34	0.34197	9.95914	6	32	28	16	15	15	14	13	13	3	2
29	9.61745	28	9.65837	33	0.34163	9.95908	6	31	29	16	16	15	14	14	13	3	2
30	9.61773	27	9.65870	34	0.34130	9.95902	5	30	30	17	16	16	14	14	13	3	2
31	9.61800	28	9.65904	33	0.34096	9.95897	6	29	31	18	17	17	15	14	14	3	3
32	9.61828	28	9.65937	34	0.34063	9.95891	6	28	32	18	18	17	15	15	14	3	3
33	9.61856	27	9.65971	33	0.34029	9.95885	6	27	33	19	18	18	16	15	15	3	3
34	9.61883	28	9.66004	34	0.33996	9.95879	6	26	34	19	19	18	16	16	15	3	3
35	9.61911	28	9.66038	33	0.33962	9.95873	5	25	35	20	19	19	17	16	16	3	3
36	9.61939	27	9.66071	33	0.33929	9.95868	6	24	36	20	20	19	17	17	16	4	3
37	9.61966	28	9.66104	34	0.33896	9.95862	6	23	37	21	20	20	18	17	17	4	3
38	9.61994	27	9.66138	33	0.33862	9.95856	6	22	38	22	21	20	18	18	17	4	3
39	9.62021	28	9.66171	33	0.33829	9.95850	6	21	39	22	21	21	19	18	18	4	3
40	9.62049	27	9.66204	34	0.33796	9.95844	5	20	40	23	22	21	19	19	18	4	3
41	9.62076	28	9.66238	33	0.33762	9.95839	6	19	41	23	23	22	20	19	18	4	3
42	9.62104	27	9.66271	33	0.33729	9.95833	6	18	42	24	23	22	20	20	19	4	3
43	9.62131	28	9.66304	33	0.33696	9.95827	6	17	43	24	24	23	21	20	19	4	4
44	9.62159	27	9.66337	34	0.33663	9.95821	6	16	44	25	24	23	21	21	20	4	4
45	9.62186	28	9.66371	33	0.33629	9.95815	5	15	45	25	25	24	22	21	20	4	4
46	9.62214	27	9.66404	33	0.33596	9.95810	6	14	46	26	25	25	22	21	21	5	4
47	9.62241	27	9.66437	33	0.33563	9.95804	6	13	47	27	26	25	23	22	21	5	4
48	9.62268	28	9.66470	33	0.33530	9.95798	6	12	48	27	26	26	23	22	22	5	4
49	9.62296	27	9.66503	34	0.33497	9.95792	6	11	49	28	27	26	24	23	22	5	4
50	9.62323	27	9.66537	33	0.33463	9.95786	6	10	50	28	27	27	24	23	22	5	4
51	9.62350	27	9.66570	33	0.33430	9.95780	5	9	51	29	28	27	25	24	23	5	4
52	9.62377	28	9.66603	33	0.33397	9.95775	6	8	52	29	29	28	25	24	23	5	4
53	9.62405	27	9.66636	33	0.33364	9.95769	6	7	53	30	29	28	26	25	24	5	4
54	9.62432	27	9.66669	33	0.33331	9.95763	6	6	54	31	30	29	26	25	24	5	4
55	9.62459	27	9.66702	33	0.33298	9.95757	6	5	55	31	30	29	27	26	25	5	5
56	9.62486	27	9.66735	33	0.33265	9.95751	6	4	56	32	31	30	27	26	25	6	5
57	9.62513	28	9.66768	33	0.33232	9.95745	6	3	57	32	31	30	28	27	26	6	5
58	9.62541	27	9.66801	33	0.33199	9.95739	6	2	58	33	32	31	28	27	26	6	5
59	9.62568	27	9.66834	33	0.33166	9.95733	5	1	59	33	32	31	29	28	27	6	5
60	9.62595		9.66867		0.33133	9.95728	0	0	60	34	33	32	29	28	27	6	5
	Cos	d.	Cotg	d.c	Tang	Sin	d.			P. P.							

							P. P.																					
	Sin	d.	Tang	d.c	Cotg	Cos	d.			33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15
0	9.62595	27	9.66867	33	0.33133	9.95728	6	60		1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	9.62622	27	9.66900	33	0.33100	9.95722	6	59	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	9.62649	27	9.66933	33	0.33067	9.95716	6	58	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3	9.62676	27	9.66966	33	0.33034	9.95710	6	57	3	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4	9.62703	27	9.66999	33	0.33001	9.95704	6	56	4	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0
5	9.62730	27	9.67032	33	0.32968	9.95698	6	55	5	3	3	2	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0
6	9.62757	27	9.67065	33	0.32935	9.95692	6	54	6	3	3	3	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1
7	9.62784	27	9.67098	33	0.32902	9.95686	6	53	7	4	4	3	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1
8	9.62811	27	9.67131	32	0.32869	9.95680	6	52	8	4	4	4	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1
9	9.62838	27	9.67163	33	0.32837	9.95674	6	51	9	5	5	4	4	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1
10	9.62865	27	9.67196	33	0.32804	9.95668	5	50	10	5	5	4	4	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1
11	9.62892	26	9.67229	33	0.32771	9.95663	6	49	11	6	6	5	5	5	5	1	1	1	1	1	1	1	1	1	1	1	1	1
12	9.62918	27	9.67262	33	0.32738	9.95657	6	48	12	7	6	5	5	5	5	1	1	1	1	1	1	1	1	1	1	1	1	1
13	9.62945	27	9.67295	32	0.32705	9.95651	6	47	13	7	7	6	6	6	5	2	1	1	1	1	1	1	1	1	1	1	1	1
14	9.62972	27	9.67327	33	0.32673	9.95645	6	46	14	8	7	6	6	6	6	2	1	1	1	1	1	1	1	1	1	1	1	1
15	9.62999	27	9.67360	33	0.32640	9.95639	6	45	15	8	8	7	6	6	6	2	1	1	1	1	1	1	1	1	1	1	1	1
16	9.63026	26	9.67393	33	0.32607	9.95633	6	44	16	9	9	7	7	7	7	2	2	2	2	2	2	2	2	2	2	2	2	2
17	9.63052	27	9.67426	32	0.32574	9.95627	6	43	17	9	9	8	7	7	7	2	2	2	2	2	2	2	2	2	2	2	2	2
18	9.63079	27	9.67458	33	0.32542	9.95621	6	42	18	10	10	8	8	8	7	2	2	2	2	2	2	2	2	2	2	2	2	2
19	9.63106	27	9.67491	33	0.32509	9.95615	6	41	19	10	10	9	8	8	8	2	2	2	2	2	2	2	2	2	2	2	2	2
20	9.63133	26	9.67524	32	0.32476	9.95609	6	40	20	11	11	9	9	9	8	2	2	2	2	2	2	2	2	2	2	2	2	2
21	9.63159	27	9.67556	33	0.32444	9.95603	6	39	21	12	11	9	9	9	9	2	2	2	2	2	2	2	2	2	2	2	2	2
22	9.63186	27	9.67589	33	0.32411	9.95597	6	38	22	12	12	10	10	10	9	3	2	2	2	2	2	2	2	2	2	2	2	2
23	9.63213	26	9.67622	32	0.32378	9.95591	6	37	23	13	12	10	10	10	10	3	2	2	2	2	2	2	2	2	2	2	2	2
24	9.63239	27	9.67654	33	0.32346	9.95585	6	36	24	13	13	11	10	10	10	3	2	2	2	2	2	2	2	2	2	2	2	2
25	9.63266	26	9.67687	32	0.32313	9.95579	6	35	25	14	13	11	11	11	10	3	2	2	2	2	2	2	2	2	2	2	2	2
26	9.63292	27	9.67719	33	0.32281	9.95573	6	34	26	14	14	12	11	11	11	3	3	3	3	3	3	3	3	3	3	3	3	3
27	9.63319	26	9.67752	33	0.32248	9.95567	6	33	27	15	14	12	12	12	11	3	3	3	3	3	3	3	3	3	3	3	3	3
28	9.63345	27	9.67785	32	0.32215	9.95561	6	32	28	15	15	13	12	12	12	3	3	3	3	3	3	3	3	3	3	3	3	3
29	9.63372	26	9.67817	33	0.32183	9.95555	6	31	29	16	15	13	13	13	12	3	3	3	3	3	3	3	3	3	3	3	3	3
30	9.63398	27	9.67850	32	0.32150	9.95549	6	30	30	16	16	13	13	13	12	3	3	3	3	3	3	3	3	3	3	3	3	3
31	9.63425	26	9.67882	33	0.32118	9.95543	6	29	31	17	17	14	13	13	13	4	3	3	3	3	3	3	3	3	3	3	3	3
32	9.63451	27	9.67915	32	0.32085	9.95537	6	28	32	18	17	14	14	14	13	4	3	3	3	3	3	3	3	3	3	3	3	3
33	9.63478	26	9.67947	33	0.32053	9.95531	6	27	33	18	18	15	14	14	14	4	3	3	3	3	3	3	3	3	3	3	3	3
34	9.63504	27	9.67980	32	0.32020	9.95525	6	26	34	19	18	15	15	15	14	4	3	3	3	3	3	3	3	3	3	3	3	3
35	9.63531	26	9.68012	32	0.31988	9.95519	6	25	35	19	19	16	15	15	15	4	3	3	3	3	3	3	3	3	3	3	3	3
36	9.63557	26	9.68044	33	0.31956	9.95513	6	24	36	20	19	16	16	16	15	4	4	4	4	4	4	4	4	4	4	4	4	4
37	9.63583	27	9.68077	32	0.31923	9.95507	7	23	37	20	20	17	16	16	15	4	4	4	4	4	4	4	4	4	4	4	4	4
38	9.63610	26	9.68109	33	0.31891	9.95500	6	22	38	21	20	17	16	16	16	4	4	4	4	4	4	4	4	4	4	4	4	4
39	9.63636	26	9.68142	32	0.31858	9.95494	6	21	39	21	21	18	17	17	16	5	4	4	4	4	4	4	4	4	4	4	4	4
40	9.63662	27	9.68174	32	0.31826	9.95488	6	20	40	22	21	18	17	17	17	5	4	4	4	4	4	4	4	4	4	4	4	4
41	9.63689	26	9.68206	33	0.31794	9.95482	6	19	41	23	22	18	18	18	17	5	4	4	4	4	4	4	4	4	4	4	4	4
42	9.63715	26	9.68239	32	0.31761	9.95476	6	18	42	23	22	19	18	18	18	5	4	4	4	4	4	4	4	4	4	4	4	4
43	9.63741	26	9.68271	32	0.31729	9.95470	6	17	43	24	23	19	19	19	18	5	4	4	4	4	4	4	4	4	4	4	4	4
44	9.63767	27	9.68303	33	0.31697	9.95464	6	16	44	24	23	20	19	19	18	5	4	4	4	4	4	4	4	4	4	4	4	4
45	9.63794	26	9.68336	32	0.31664	9.95458	6	15	45	25	24	20	19	19	19	5	4	4	4	4	4	4	4	4	4	4	4	4
46	9.63820	26	9.68368	32	0.31632	9.95452	6	14	46	25	25	21	20	20	19	5	5	5	5	5	5	5	5	5	5	5	5	5
47	9.63846	26	9.68400	32	0.31600	9.95446	6	13	47	26	25	21	20	20	20	5	5	5	5	5	5	5	5	5	5	5	5	5
48	9.63872	26	9.68432	33	0.31568	9.95440	6	12	48	26	26	22	21	21	20	6	5	5	5	5	5	5	5	5	5	5	5	5
49	9.63898	26	9.68465	32	0.31535	9.95434	6	11	49	27	26	22	21	21	20	6	5	5	5	5	5	5	5	5	5	5	5	5
50	9.63924	26	9.68497	32	0.31503	9.95427	7	10	50	27	27	22	22	22	21	6	5	5	5	5	5	5	5	5	5	5	5	5
51	9.63950	26	9.68529	32	0.31471	9.95421	6	9	51	28	27	23	22	22	21	6	5	5	5	5	5	5	5	5	5	5	5	5
52	9.63976	26	9.68561	32	0.31439	9.95415	6	8	52	29	28	23	23	23	22	6	5	5	5	5	5	5	5	5	5	5	5	5
53	9.64002	26	9.68593	33	0.31407	9.95409	6	7	53	29	28	24	23	23	22	6	5	5	5	5	5	5	5	5	5	5	5	5
54	9.64028	26	9.68626	32	0.31374	9.95403	6	6	54	30	29	24	23	23	22	6	5	5	5	5	5	5	5	5	5	5	5	5
55	9.64054	26	9.68658	32	0.31342	9.95397	6	5	55	30	29	25	24	24	23	6	5	5	5	5	5	5	5	5	5	5	5	5
56	9.64080	26	9.68690	32	0.31310	9.95391	6	4	56	31	30	25	24	24	23	7	6	6	6	6								

	Sin	d.	Tang	d.c	Cotg	Cos	d.			P. P.							
0	9.64184		9.68818		0.31182	9.95366		60		32	31	30	26	25	24	7	6
1	9.64210	26	9.68850	32	0.31150	9.95360	6	59	1	1	1	0	0	0	0	0	0
2	9.64236	26	9.68882	32	0.31118	9.95354	6	58	2	1	1	1	1	1	1	0	0
3	9.64262	26	9.68914	32	0.31086	9.95348	7	57	3	2	2	1	1	1	1	0	0
4	9.64288	25	9.68946	32	0.31054	9.95341	6	56	4	2	2	2	2	2	2	0	0
5	9.64313	26	9.68978	32	0.31022	9.95335	6	55	5	3	3	2	2	2	2	1	0
6	9.64339	26	9.69010	32	0.30990	9.95329	6	54	6	3	3	3	3	2	2	1	1
7	9.64365	26	9.69042	32	0.30958	9.95323	6	53	7	4	4	3	3	3	3	1	1
8	9.64391	26	9.69074	32	0.30926	9.95317	7	52	8	4	4	4	3	3	3	1	1
9	9.64417	25	9.69106	32	0.30894	9.95310	6	51	9	5	5	4	4	4	4	1	1
10	9.64442	26	9.69138	32	0.30862	9.95304	6	50	10	5	5	5	4	4	4	1	1
11	9.64468	26	9.69170	32	0.30830	9.95298	6	49	11	6	6	5	5	5	4	1	1
12	9.64494	25	9.69202	32	0.30798	9.95292	6	48	12	6	6	6	5	5	5	1	1
13	9.64519	26	9.69234	32	0.30766	9.95286	7	47	13	7	7	6	6	5	5	2	1
14	9.64545	26	9.69266	32	0.30734	9.95279	6	46	14	7	7	7	6	6	6	2	1
15	9.64571	25	9.69298	31	0.30702	9.95273	6	45	15	8	8	7	6	6	6	2	1
16	9.64596	26	9.69329	32	0.30671	9.95267	6	44	16	9	8	8	7	7	6	2	2
17	9.64622	25	9.69361	32	0.30639	9.95261	7	43	17	9	9	8	7	7	7	2	2
18	9.64647	26	9.69393	32	0.30607	9.95254	6	42	18	10	9	9	8	7	7	2	2
19	9.64673	25	9.69425	32	0.30575	9.95248	6	41	19	10	10	9	8	8	8	2	2
20	9.64698	26	9.69457	31	0.30543	9.95242	6	40	20	11	10	10	9	8	8	2	2
21	9.64724	25	9.69488	32	0.30512	9.95236	7	39	21	11	11	10	9	9	8	2	2
22	9.64749	26	9.69520	32	0.30480	9.95229	6	38	22	12	11	11	10	9	9	3	2
23	9.64775	25	9.69552	32	0.30448	9.95223	6	37	23	12	12	11	10	10	9	3	2
24	9.64800	26	9.69584	31	0.30416	9.95217	6	36	24	13	12	12	10	10	10	3	2
25	9.64826	25	9.69615	32	0.30385	9.95211	7	35	25	13	13	12	11	10	10	3	2
26	9.64851	26	9.69647	32	0.30353	9.95204	6	34	26	14	13	13	11	11	10	3	3
27	9.64877	25	9.69679	31	0.30321	9.95198	6	33	27	14	14	13	12	11	11	3	3
28	9.64902	25	9.69710	32	0.30290	9.95192	7	32	28	15	14	14	12	12	11	3	3
29	9.64927	26	9.69742	32	0.30258	9.95185	6	31	29	15	15	14	13	12	12	3	3
30	9.64953	25	9.69774	31	0.30226	9.95179	6	30	30	16	15	15	13	12	12	3	3
31	9.64978	25	9.69805	32	0.30195	9.95173	6	29	31	17	16	15	13	13	12	4	3
32	9.65003	26	9.69837	31	0.30163	9.95167	7	28	32	17	17	16	14	13	13	4	3
33	9.65029	25	9.69868	32	0.30132	9.95160	6	27	33	18	17	16	14	14	13	4	3
34	9.65054	25	9.69900	32	0.30100	9.95154	6	26	34	18	18	17	15	14	14	4	3
35	9.65079	25	9.69932	31	0.30068	9.95148	7	25	35	19	18	17	15	15	14	4	3
36	9.65104	26	9.69963	32	0.30037	9.95141	6	24	36	19	19	18	16	15	14	4	4
37	9.65130	25	9.69995	31	0.30005	9.95135	6	23	37	20	19	18	16	15	15	4	4
38	9.65155	25	9.70026	32	0.29974	9.95129	7	22	38	20	20	19	16	16	15	4	4
39	9.65180	25	9.70058	31	0.29942	9.95122	6	21	39	21	20	19	17	16	16	5	4
40	9.65205	25	9.70089	32	0.29911	9.95116	6	20	40	21	21	20	17	17	16	5	4
41	9.65230	25	9.70121	31	0.29879	9.95110	7	19	41	22	21	20	18	17	16	5	4
42	9.65255	26	9.70152	32	0.29848	9.95103	6	18	42	22	22	21	18	17	17	5	4
43	9.65281	25	9.70184	31	0.29816	9.95097	7	17	43	23	22	21	19	18	17	5	4
44	9.65306	25	9.70215	32	0.29785	9.95090	6	16	44	23	23	22	19	18	18	5	4
45	9.65331	25	9.70247	31	0.29753	9.95084	6	15	45	24	23	22	19	19	18	5	4
46	9.65356	25	9.70278	31	0.29722	9.95078	7	14	46	25	24	23	20	19	18	5	5
47	9.65381	25	9.70309	32	0.29691	9.95071	6	13	47	25	24	23	20	20	19	5	5
48	9.65406	25	9.70341	31	0.29659	9.95065	6	12	48	26	25	24	21	20	19	6	5
49	9.65431	25	9.70372	32	0.29628	9.95059	7	11	49	26	25	24	21	20	20	6	5
50	9.65456	25	9.70404	31	0.29596	9.95052	6	10	50	27	26	25	22	21	20	6	5
51	9.65481	25	9.70435	31	0.29565	9.95046	7	9	51	27	26	25	22	21	20	6	5
52	9.65506	25	9.70466	32	0.29534	9.95039	6	8	52	28	27	26	23	22	21	6	5
53	9.65531	25	9.70498	31	0.29502	9.95033	6	7	53	28	27	26	23	22	21	6	5
54	9.65556	24	9.70529	31	0.29471	9.95027	7	6	54	29	28	27	23	22	22	6	5
55	9.65580	25	9.70560	32	0.29440	9.95020	6	5	55	29	28	27	24	23	22	6	5
56	9.65605	25	9.70592	31	0.29408	9.95014	7	4	56	30	29	28	24	23	22	7	6
57	9.65630	25	9.70623	31	0.29377	9.95007	6	3	57	30	29	28	25	24	23	7	6
58	9.65655	25	9.70654	31	0.29346	9.95001	6	2	58	31	30	29	25	24	23	7	6
59	9.65680	25	9.70685	32	0.29315	9.94995	7	1	59	31	30	29	26	25	24	7	6
60	9.65705		9.70717		0.29283	9.94988		0	60	32	31	30	26	25	24	7	6
	Cos	d.	Cotg	d.c	Tang	Sin	d.			P. P.							

	Sin	d.	Tang	d.c	Cotg	Cos	d.			P. P.								
0	9.65705	24	9.70717	31	0.29283	9.94988	6	60	00	32	31	30	29	28	27	26	25	24
1	9.65729	25	9.70748	31	0.29252	9.94982	7	59	01	1	1	0	0	0	0	0	0	0
2	9.65754	25	9.70779	31	0.29221	9.94975	6	58	02	1	1	1	1	1	1	0	0	0
3	9.65779	25	9.70810	31	0.29190	9.94969	7	57	03	2	2	1	1	1	1	0	0	0
4	9.65804	24	9.70841	32	0.29159	9.94962	6	56	04	2	2	2	2	2	2	0	0	0
5	9.65828	25	9.70873	31	0.29127	9.94956	7	55	05	3	3	2	2	2	2	1	0	0
6	9.65853	25	9.70904	31	0.29096	9.94949	6	54	06	3	3	3	2	2	2	1	1	1
7	9.65878	24	9.70935	31	0.29065	9.94943	7	53	07	4	4	3	3	3	3	1	1	1
8	9.65902	25	9.70966	31	0.29034	9.94936	6	52	08	4	4	4	3	3	3	1	1	1
9	9.65927	25	9.70997	31	0.29003	9.94930	7	51	09	5	5	4	4	4	3	1	1	1
10	9.65952	24	9.71028	31	0.28972	9.94923	6	50	10	5	5	5	4	4	4	1	1	1
11	9.65976	25	9.71059	31	0.28941	9.94917	6	49	11	6	6	5	5	4	4	1	1	1
12	9.66001	24	9.71090	31	0.28910	9.94911	7	48	12	6	6	6	5	5	5	1	1	1
13	9.66025	25	9.71121	32	0.28879	9.94904	6	47	13	7	7	6	5	5	5	2	1	1
14	9.66050	25	9.71153	31	0.28847	9.94898	7	46	14	7	7	7	6	6	5	2	1	1
15	9.66075	24	9.71184	31	0.28816	9.94891	6	45	15	8	8	7	6	6	6	2	1	1
16	9.66099	25	9.71215	31	0.28785	9.94885	7	44	16	9	8	8	7	6	6	2	2	1
17	9.66124	24	9.71246	31	0.28754	9.94878	7	43	17	9	9	8	7	7	7	2	2	1
18	9.66148	25	9.71277	31	0.28723	9.94871	6	42	18	10	9	9	7	7	7	2	2	1
19	9.66173	24	9.71308	31	0.28692	9.94865	7	41	19	10	10	9	8	8	7	2	2	1
20	9.66197	24	9.71339	31	0.28661	9.94858	6	40	20	11	10	10	8	8	8	2	2	1
21	9.66221	25	9.71370	31	0.28630	9.94852	7	39	21	11	11	10	9	8	8	2	2	1
22	9.66246	24	9.71401	30	0.28599	9.94845	6	38	22	12	11	11	9	9	8	3	2	1
23	9.66270	25	9.71431	31	0.28569	9.94839	7	37	23	12	12	11	10	9	9	3	2	1
24	9.66295	24	9.71462	31	0.28538	9.94832	6	36	24	13	12	12	10	10	9	3	2	1
25	9.66319	24	9.71493	31	0.28507	9.94826	7	35	25	13	13	12	10	10	10	3	2	1
26	9.66343	25	9.71524	31	0.28476	9.94819	6	34	26	14	13	13	11	10	10	3	3	1
27	9.66368	24	9.71555	31	0.28445	9.94813	7	33	27	14	14	13	11	11	10	3	3	1
28	9.66392	24	9.71586	31	0.28414	9.94806	7	32	28	15	14	14	12	11	11	3	3	1
29	9.66416	25	9.71617	31	0.28383	9.94799	6	31	29	15	15	14	12	12	11	3	3	1
30	9.66441	24	9.71648	31	0.28352	9.94793	7	30	30	16	15	15	12	12	11	3	3	1
31	9.66465	24	9.71679	30	0.28321	9.94786	6	29	31	17	16	15	13	12	12	4	3	1
32	9.66489	24	9.71709	30	0.28291	9.94780	7	28	32	17	17	16	13	13	12	4	3	1
33	9.66513	24	9.71740	31	0.28260	9.94773	6	27	33	18	17	16	14	13	13	4	3	1
34	9.66537	25	9.71771	31	0.28229	9.94767	7	26	34	18	18	17	14	14	13	4	3	1
35	9.66562	24	9.71802	31	0.28198	9.94760	7	25	35	19	18	17	15	14	13	4	3	1
36	9.66586	24	9.71833	30	0.28167	9.94753	6	24	36	19	19	18	15	14	14	4	4	1
37	9.66610	24	9.71863	31	0.28137	9.94747	7	23	37	20	19	18	15	15	14	4	4	1
38	9.66634	24	9.71894	31	0.28106	9.94740	6	22	38	20	20	19	16	15	15	4	4	1
39	9.66658	24	9.71925	30	0.28075	9.94734	7	21	39	21	20	19	16	16	15	5	4	1
40	9.66682	24	9.71955	31	0.28045	9.94727	7	20	40	21	21	20	17	16	15	5	4	1
41	9.66706	25	9.71986	31	0.28014	9.94720	6	19	41	22	21	20	17	16	16	5	4	1
42	9.66731	24	9.72017	31	0.27983	9.94714	7	18	42	22	22	21	17	17	16	5	4	1
43	9.66755	24	9.72048	30	0.27952	9.94707	7	17	43	23	22	21	18	17	16	5	4	1
44	9.66779	24	9.72078	31	0.27922	9.94700	6	16	44	23	23	22	18	18	17	5	4	1
45	9.66803	24	9.72109	31	0.27891	9.94694	7	15	45	24	23	22	19	18	17	5	4	1
46	9.66827	24	9.72140	30	0.27860	9.94687	7	14	46	25	24	23	19	18	18	5	5	1
47	9.66851	24	9.72170	31	0.27830	9.94680	6	13	47	25	24	23	20	19	18	5	5	1
48	9.66875	24	9.72201	30	0.27799	9.94674	7	12	48	26	25	24	20	19	18	6	5	1
49	9.66899	23	9.72231	31	0.27769	9.94667	7	11	49	26	25	24	20	20	19	6	5	1
50	9.66922	24	9.72262	31	0.27738	9.94660	6	10	50	27	26	25	21	20	19	6	5	1
51	9.66946	24	9.72293	30	0.27707	9.94654	7	9	51	27	26	25	21	20	20	6	5	1
52	9.66970	24	9.72323	31	0.27677	9.94647	7	8	52	28	27	26	22	21	20	6	5	1
53	9.66994	24	9.72354	30	0.27646	9.94640	6	7	53	28	27	26	22	21	20	6	5	1
54	9.67018	24	9.72384	31	0.27616	9.94634	7	6	54	29	28	27	22	22	21	6	5	1
55	9.67042	24	9.72415	30	0.27585	9.94627	7	5	55	29	28	27	23	22	21	6	5	1
56	9.67066	24	9.72445	31	0.27555	9.94620	6	4	56	30	29	28	23	22	21	7	6	1
57	9.67090	23	9.72476	30	0.27524	9.94614	7	3	57	30	29	28	24	23	22	7	6	1
58	9.67113	24	9.72506	31	0.27494	9.94607	7	2	58	31	30	29	24	23	22	7	6	1
59	9.67137	24	9.72537	30	0.27463	9.94600	7	1	59	31	30	29	25	24	23	7	6	1
60	9.67161	24	9.72567	30	0.27433	9.94593	7	0	60	32	31	30	25	24	23	7	6	1
	Cos	d.	Cotg	d.c	Tang	Sin	d.			P. P.								

	Sin	d.	Tang	d.c	Cotg	Cos	d.	n	P. P.							
									31	30	29	24	23	22	7	6
0	9.67161	24	9.72567	31	0.27433	9.94593	6	60								
1	9.67185	23	9.72598	30	0.27402	9.94587	7	59	1	0	0	0	0	0	0	0
2	9.67208	24	9.72628	31	0.27372	9.94580	7	58	1	1	1	1	1	1	0	0
3	9.67232	24	9.72659	30	0.27341	9.94573	6	57	2	1	1	1	1	1	0	0
4	9.67256	24	9.72689	31	0.27311	9.94567	7	56	2	2	2	2	2	1	0	0
5	9.67280	23	9.72720	30	0.27280	9.94560	7	55	3	2	2	2	2	2	1	0
6	9.67303	24	9.72750	30	0.27250	9.94553	7	54	3	3	3	2	2	2	1	1
7	9.67327	23	9.72780	31	0.27220	9.94546	6	53	4	3	3	3	3	3	1	1
8	9.67350	24	9.72811	30	0.27189	9.94540	7	52	4	4	4	3	3	3	1	1
9	9.67374	24	9.72841	31	0.27159	9.94533	7	51	5	4	4	4	3	3	1	1
10	9.67398	23	9.72872	30	0.27128	9.94526	7	50	5	5	5	4	4	4	1	1
11	9.67421	24	9.72902	30	0.27098	9.94519	6	49	6	5	5	4	4	4	1	1
12	9.67445	23	9.72932	31	0.27068	9.94513	7	48	6	6	6	5	5	4	1	1
13	9.67468	24	9.72963	30	0.27037	9.94506	7	47	7	6	6	5	5	5	2	1
14	9.67492	23	9.72993	30	0.27007	9.94499	7	46	7	7	7	6	5	5	2	1
15	9.67515	24	9.73023	31	0.26977	9.94492	7	45	8	7	7	6	6	5	2	1
16	9.67539	23	9.73054	30	0.26946	9.94485	6	44	8	8	8	6	6	6	2	2
17	9.67562	24	9.73084	30	0.26916	9.94479	7	43	9	8	8	7	7	6	2	2
18	9.67586	23	9.73114	30	0.26886	9.94472	7	42	9	9	9	7	7	7	2	2
19	9.67609	24	9.73144	31	0.26856	9.94465	7	41	10	9	9	8	7	7	2	2
20	9.67633	23	9.73175	30	0.26825	9.94458	7	40	10	10	10	8	8	7	2	2
21	9.67656	24	9.73205	30	0.26795	9.94451	6	39	11	10	10	8	8	8	2	2
22	9.67680	23	9.73235	30	0.26765	9.94445	7	38	11	11	11	9	8	8	3	2
23	9.67703	23	9.73265	30	0.26735	9.94438	7	37	12	11	11	9	9	8	3	2
24	9.67726	24	9.73295	31	0.26705	9.94431	7	36	12	12	12	10	9	9	3	2
25	9.67750	23	9.73326	30	0.26674	9.94424	7	35	13	12	12	10	10	9	3	2
26	9.67773	23	9.73356	30	0.26644	9.94417	7	34	13	13	13	10	10	10	3	3
27	9.67796	24	9.73386	30	0.26614	9.94410	6	33	14	13	13	11	10	10	3	3
28	9.67820	23	9.73416	30	0.26584	9.94404	7	32	14	14	14	11	11	10	3	3
29	9.67843	23	9.73446	30	0.26554	9.94397	7	31	15	14	14	12	11	11	3	3
30	9.67866	24	9.73476	31	0.26524	9.94390	7	30	15	15	14	12	11	11	3	3
31	9.67890	23	9.73507	30	0.26493	9.94383	7	29	16	15	15	12	12	11	4	3
32	9.67913	23	9.73537	30	0.26463	9.94376	7	28	17	16	15	13	12	12	4	3
33	9.67936	23	9.73567	30	0.26433	9.94369	7	27	17	16	16	13	13	12	4	3
34	9.67959	23	9.73597	30	0.26403	9.94362	7	26	18	17	16	14	13	12	4	3
35	9.67982	24	9.73627	30	0.26373	9.94355	6	25	18	17	17	14	13	13	4	3
36	9.68006	23	9.73657	30	0.26343	9.94349	7	24	19	18	17	14	14	13	4	4
37	9.68029	23	9.73687	30	0.26313	9.94342	7	23	19	18	18	15	14	14	4	4
38	9.68052	23	9.73717	30	0.26283	9.94335	7	22	20	19	18	15	15	14	4	4
39	9.68075	23	9.73747	30	0.26253	9.94328	7	21	20	19	19	16	15	14	5	4
40	9.68098	23	9.73777	30	0.26223	9.94321	7	20	21	20	19	16	15	15	5	4
41	9.68121	23	9.73807	30	0.26193	9.94314	7	19	21	20	20	16	16	15	5	4
42	9.68144	23	9.73837	30	0.26163	9.94307	7	18	22	21	20	17	16	15	5	4
43	9.68167	23	9.73867	30	0.26133	9.94300	7	17	22	21	21	17	16	16	5	4
44	9.68190	23	9.73897	30	0.26103	9.94293	7	16	23	22	21	18	17	16	5	4
45	9.68213	24	9.73927	30	0.26073	9.94286	7	15	23	22	22	18	17	16	5	4
46	9.68237	24	9.73957	30	0.26043	9.94279	6	14	24	23	22	18	18	17	5	5
47	9.68260	23	9.73987	30	0.26013	9.94273	6	13	24	23	23	19	18	17	5	5
48	9.68283	22	9.74017	30	0.25983	9.94266	7	12	25	24	23	19	18	18	6	5
49	9.68305	23	9.74047	30	0.25953	9.94259	7	11	25	24	24	20	19	18	6	5
50	9.68328	23	9.74077	30	0.25923	9.94252	7	10	26	25	24	20	19	18	6	5
51	9.68351	23	9.74107	30	0.25893	9.94245	7	9	26	25	25	20	20	19	6	5
52	9.68374	23	9.74137	29	0.25863	9.94238	7	8	27	26	25	21	20	19	6	5
53	9.68397	23	9.74166	30	0.25834	9.94231	7	7	27	26	26	21	20	19	6	5
54	9.68420	23	9.74196	30	0.25804	9.94224	7	6	28	27	26	22	21	20	6	5
55	9.68443	23	9.74226	30	0.25774	9.94217	7	5	28	27	27	22	21	20	6	5
56	9.68466	23	9.74256	30	0.25744	9.94210	7	4	29	28	27	22	21	21	7	6
57	9.68489	23	9.74286	30	0.25714	9.94203	7	3	29	28	28	23	22	21	7	6
58	9.68512	22	9.74316	29	0.25684	9.94196	7	2	30	29	28	23	22	21	7	6
59	9.68534	23	9.74345	30	0.25655	9.94189	7	1	30	29	29	24	23	22	7	6
60	9.68557		9.74375		0.25625	9.94182		0	31	30	29	24	23	22	7	6
	Cos	d.	Cotg	d.c	Tang	Sin	d.	n	P. P.							

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	Sin	d.	Tang	d.c	Cotg	Cos	d.			P. P.							
0	9.68557	23	9.74375	30	0.25625	9.94182	7	60	1	30	29	28	23	22	21	8	7
1	9.68580	23	9.74405	30	0.25595	9.94175	7	59	1	0	0	0	0	0	0	0	0
2	9.68603	23	9.74435	30	0.25565	9.94168	7	58	2	1	1	1	1	1	1	0	0
3	9.68625	23	9.74465	29	0.25535	9.94161	7	57	3	1	1	1	1	1	1	0	0
4	9.68648	23	9.74494	30	0.25506	9.94154	7	56	4	2	2	2	2	1	1	1	0
5	9.68671	23	9.74524	30	0.25476	9.94147	7	55	5	2	2	2	2	2	2	1	1
6	9.68694	22	9.74554	29	0.25446	9.94140	7	54	6	3	3	3	2	2	2	1	1
7	9.68716	23	9.74583	30	0.25417	9.94133	7	53	7	3	3	3	3	3	2	1	1
8	9.68739	23	9.74613	30	0.25387	9.94126	7	52	8	4	4	4	3	3	3	1	1
9	9.68762	22	9.74643	30	0.25357	9.94119	7	51	9	4	4	4	3	3	3	1	1
10	9.68784	23	9.74673	29	0.25327	9.94112	7	50	10	5	5	5	4	4	3	1	1
11	9.68807	22	9.74702	30	0.25298	9.94105	7	49	11	5	5	5	4	4	4	1	1
12	9.68829	23	9.74732	30	0.25268	9.94098	8	48	12	6	6	6	5	4	4	2	1
13	9.68852	23	9.74762	29	0.25238	9.94090	7	47	13	6	6	6	5	5	5	2	2
14	9.68875	22	9.74791	30	0.25209	9.94083	7	46	14	7	7	7	5	5	5	2	2
15	9.68897	23	9.74821	30	0.25179	9.94076	7	45	15	7	7	7	6	5	5	2	2
16	9.68920	22	9.74851	29	0.25149	9.94069	7	44	16	8	8	7	6	6	6	2	2
17	9.68942	23	9.74880	30	0.25120	9.94062	7	43	17	8	8	8	7	6	6	2	2
18	9.68965	22	9.74910	29	0.25090	9.94055	7	42	18	9	9	8	7	7	6	2	2
19	9.68987	23	9.74939	30	0.25061	9.94048	7	41	19	9	9	9	7	7	7	3	2
20	9.69010	22	9.74969	29	0.25031	9.94041	7	40	20	10	10	9	8	7	7	3	2
21	9.69032	23	9.74998	30	0.25002	9.94034	7	39	21	10	10	10	8	8	7	3	2
22	9.69055	22	9.75028	30	0.24972	9.94027	7	38	22	11	11	10	8	8	8	3	3
23	9.69077	23	9.75058	29	0.24942	9.94020	8	37	23	11	11	11	9	8	8	3	3
24	9.69100	22	9.75087	30	0.24913	9.94012	7	36	24	12	12	11	9	9	8	3	3
25	9.69122	22	9.75117	29	0.24883	9.94005	7	35	25	12	12	12	10	9	9	3	3
26	9.69144	23	9.75146	30	0.24854	9.93998	7	34	26	13	13	12	10	10	9	3	3
27	9.69167	22	9.75176	29	0.24824	9.93991	7	33	27	13	13	13	10	10	9	4	3
28	9.69189	23	9.75205	30	0.24795	9.93984	7	32	28	14	14	13	11	10	10	4	3
29	9.69212	22	9.75235	29	0.24765	9.93977	7	31	29	14	14	14	11	11	10	4	3
30	9.69234	22	9.75264	30	0.24736	9.93970	7	30	30	15	14	14	11	11	10	4	3
31	9.69256	23	9.75294	29	0.24706	9.93963	8	29	31	15	15	14	12	11	11	4	4
32	9.69279	22	9.75323	30	0.24677	9.93955	7	28	32	16	15	15	12	12	11	4	4
33	9.69301	22	9.75353	29	0.24647	9.93948	7	27	33	16	16	15	13	12	12	4	4
34	9.69323	22	9.75382	29	0.24618	9.93941	7	26	34	17	16	16	13	12	12	5	4
35	9.69345	23	9.75411	30	0.24589	9.93934	7	25	35	17	17	16	13	13	12	5	4
36	9.69368	22	9.75441	29	0.24559	9.93927	7	24	36	18	17	17	14	13	13	5	4
37	9.69390	22	9.75470	30	0.24530	9.93920	8	23	37	18	18	17	14	14	13	5	4
38	9.69412	22	9.75500	29	0.24500	9.93912	7	22	38	19	18	18	15	14	13	5	4
39	9.69434	22	9.75529	29	0.24471	9.93905	7	21	39	19	19	18	15	14	14	5	5
40	9.69456	23	9.75558	30	0.24442	9.93898	7	20	40	20	19	19	15	15	14	5	5
41	9.69479	22	9.75588	29	0.24412	9.93891	7	19	41	20	20	19	16	15	14	5	5
42	9.69501	22	9.75617	30	0.24383	9.93884	8	18	42	21	20	20	16	15	15	6	5
43	9.69523	22	9.75647	29	0.24353	9.93876	7	17	43	21	21	20	16	16	15	6	5
44	9.69545	22	9.75676	29	0.24324	9.93869	7	16	44	22	21	21	17	16	15	6	5
45	9.69567	22	9.75705	30	0.24295	9.93862	7	15	45	22	22	21	17	16	16	6	5
46	9.69589	22	9.75735	29	0.24265	9.93855	8	14	46	23	22	21	18	17	16	6	5
47	9.69611	22	9.75764	29	0.24236	9.93847	7	13	47	23	23	22	18	17	16	6	5
48	9.69633	22	9.75793	29	0.24207	9.93840	7	12	48	24	23	22	18	18	17	6	6
49	9.69655	22	9.75822	30	0.24178	9.93833	7	11	49	24	24	23	19	18	17	7	6
50	9.69677	22	9.75852	29	0.24148	9.93826	7	10	50	25	24	23	19	18	17	7	6
51	9.69699	22	9.75881	29	0.24119	9.93819	8	9	51	25	25	24	20	19	18	7	6
52	9.69721	22	9.75910	29	0.24090	9.93811	7	8	52	26	25	24	20	19	18	7	6
53	9.69743	22	9.75939	30	0.24061	9.93804	7	7	53	26	26	25	20	19	19	7	6
54	9.69765	22	9.75969	29	0.24031	9.93797	8	6	54	27	26	25	21	20	19	7	6
55	9.69787	22	9.75998	29	0.24002	9.93789	7	5	55	27	27	26	21	20	19	7	6
56	9.69809	22	9.76027	29	0.23973	9.93782	7	4	56	28	27	26	21	21	20	7	7
57	9.69831	22	9.76056	30	0.23944	9.93775	7	3	57	28	28	27	22	21	20	8	7
58	9.69853	22	9.76086	29	0.23914	9.93768	8	2	58	29	28	27	22	21	20	8	7
59	9.69875	22	9.76115	29	0.23885	9.93760	7	1	59	29	29	28	23	22	21	8	7
60	9.69897	22	9.76144	29	0.23856	9.93753	7	0	60	30	29	28	23	22	21	8	7
	Cos	d.	Cotg	d.c	Tang	Sin	d.										

							P. P.										
	Sin	d.	Tang	d.c	Cotg	Cos	d.	n	30	29	28	27	26	25	24	23	22
0	9.69897	22	9.76144	29	0.23856	9.93753	7	60	0	0	0	0	0	0	0	0	0
1	9.69919	22	9.76173	29	0.23827	9.93746	7	59	1	1	1	1	1	1	1	1	1
2	9.69941	22	9.76202	29	0.23798	9.93738	7	58	1	1	1	1	1	1	1	1	1
3	9.69963	21	9.76231	30	0.23769	9.93731	7	57	2	2	2	2	2	2	2	2	2
4	9.69984	22	9.76261	29	0.23739	9.93724	7	56	2	2	2	2	2	2	2	2	2
5	9.70006	22	9.76290	29	0.23710	9.93717	8	55	3	3	3	3	3	3	3	3	3
6	9.70028	22	9.76319	29	0.23681	9.93709	7	54	3	3	3	3	3	3	3	3	3
7	9.70050	22	9.76348	29	0.23652	9.93702	7	53	4	4	4	4	4	4	4	4	4
8	9.70072	21	9.76377	29	0.23623	9.93695	8	52	4	4	4	4	4	4	4	4	4
9	9.70093	22	9.76406	29	0.23594	9.93687	7	51	5	5	5	5	5	5	5	5	5
10	9.70115	22	9.76435	29	0.23565	9.93680	7	50	5	5	5	5	5	5	5	5	5
11	9.70137	22	9.76464	29	0.23536	9.93673	8	49	6	6	6	6	6	6	6	6	6
12	9.70159	21	9.76493	29	0.23507	9.93665	7	48	6	6	6	6	6	6	6	6	6
13	9.70180	22	9.76522	29	0.23478	9.93658	8	47	7	7	7	7	7	7	7	7	7
14	9.70202	22	9.76551	29	0.23449	9.93650	7	46	7	7	7	7	7	7	7	7	7
15	9.70224	21	9.76580	29	0.23420	9.93643	7	45	8	8	8	8	8	8	8	8	8
16	9.70245	22	9.76609	30	0.23391	9.93636	8	44	8	8	8	8	8	8	8	8	8
17	9.70267	21	9.76639	29	0.23361	9.93628	7	43	9	9	9	9	9	9	9	9	9
18	9.70288	22	9.76668	29	0.23332	9.93621	7	42	9	9	9	9	9	9	9	9	9
19	9.70310	22	9.76697	28	0.23303	9.93614	8	41	10	10	10	10	10	10	10	10	10
20	9.70332	21	9.76725	29	0.23275	9.93606	7	40	10	10	10	10	10	10	10	10	10
21	9.70353	22	9.76754	29	0.23246	9.93599	8	39	11	11	11	11	11	11	11	11	11
22	9.70375	21	9.76783	29	0.23217	9.93591	7	38	11	11	11	11	11	11	11	11	11
23	9.70396	22	9.76812	29	0.23188	9.93584	7	37	12	12	12	12	12	12	12	12	12
24	9.70418	21	9.76841	29	0.23159	9.93577	8	36	12	12	12	12	12	12	12	12	12
25	9.70439	22	9.76870	29	0.23130	9.93569	7	35	13	13	13	13	13	13	13	13	13
26	9.70461	21	9.76899	29	0.23101	9.93562	8	34	13	13	13	13	13	13	13	13	13
27	9.70482	22	9.76928	29	0.23072	9.93554	7	33	14	14	14	14	14	14	14	14	14
28	9.70504	21	9.76957	29	0.23043	9.93547	8	32	14	14	14	14	14	14	14	14	14
29	9.70525	22	9.76986	29	0.23014	9.93539	7	31	15	15	15	15	15	15	15	15	15
30	9.70547	21	9.77015	29	0.22985	9.93532	7	30	15	15	15	15	15	15	15	15	15
31	9.70568	22	9.77044	29	0.22956	9.93525	8	29	16	16	16	16	16	16	16	16	16
32	9.70590	21	9.77073	28	0.22927	9.93517	7	28	16	16	16	16	16	16	16	16	16
33	9.70611	22	9.77101	29	0.22899	9.93510	8	27	17	17	17	17	17	17	17	17	17
34	9.70633	21	9.77130	29	0.22870	9.93502	7	26	17	17	17	17	17	17	17	17	17
35	9.70654	21	9.77159	29	0.22841	9.93495	8	25	18	18	18	18	18	18	18	18	18
36	9.70675	22	9.77188	29	0.22812	9.93487	7	24	18	18	18	18	18	18	18	18	18
37	9.70697	21	9.77217	29	0.22783	9.93480	8	23	19	19	19	19	19	19	19	19	19
38	9.70718	21	9.77246	28	0.22754	9.93472	7	22	19	19	19	19	19	19	19	19	19
39	9.70739	22	9.77274	29	0.22726	9.93465	8	21	20	20	20	20	20	20	20	20	20
40	9.70761	21	9.77303	29	0.22697	9.93457	7	20	20	20	20	20	20	20	20	20	20
41	9.70782	21	9.77332	29	0.22668	9.93450	8	19	21	21	21	21	21	21	21	21	21
42	9.70803	21	9.77361	29	0.22639	9.93442	7	18	21	21	21	21	21	21	21	21	21
43	9.70824	22	9.77390	28	0.22610	9.93435	8	17	22	22	22	22	22	22	22	22	22
44	9.70846	21	9.77418	29	0.22582	9.93427	7	16	22	22	22	22	22	22	22	22	22
45	9.70867	21	9.77447	29	0.22553	9.93420	8	15	23	23	23	23	23	23	23	23	23
46	9.70888	21	9.77476	29	0.22524	9.93412	7	14	23	23	23	23	23	23	23	23	23
47	9.70909	22	9.77505	28	0.22495	9.93405	8	13	24	24	24	24	24	24	24	24	24
48	9.70931	21	9.77533	29	0.22467	9.93397	7	12	24	24	24	24	24	24	24	24	24
49	9.70952	21	9.77562	29	0.22438	9.93390	8	11	25	25	25	25	25	25	25	25	25
50	9.70973	21	9.77591	28	0.22409	9.93382	7	10	25	25	25	25	25	25	25	25	25
51	9.70994	21	9.77619	29	0.22381	9.93375	8	9	26	26	26	26	26	26	26	26	26
52	9.71015	21	9.77648	29	0.22352	9.93367	7	8	26	26	26	26	26	26	26	26	26
53	9.71036	22	9.77677	29	0.22323	9.93360	8	7	27	27	27	27	27	27	27	27	27
54	9.71058	21	9.77706	28	0.22294	9.93352	8	6	27	27	27	27	27	27	27	27	27
55	9.71079	21	9.77734	29	0.22266	9.93344	7	5	28	28	28	28	28	28	28	28	28
56	9.71100	21	9.77763	28	0.22237	9.93337	8	4	28	28	28	28	28	28	28	28	28
57	9.71121	21	9.77791	29	0.22209	9.93329	7	3	29	29	29	29	29	29	29	29	29
58	9.71142	21	9.77820	29	0.22180	9.93322	8	2	29	29	29	29	29	29	29	29	29
59	9.71163	21	9.77849	28	0.22151	9.93314	7	1	30	30	30	30	30	30	30	30	30
60	9.71184	21	9.77877		0.22123	9.93307	0	0	30	30	30	30	30	30	30	30	30
	Cos	d.	Cotg	d.c	Tang	Sin	d.	n	P. P.								

	Sin	d.	Tang	d.c	Cotg	Cos	d.			P.	P.																												
0	9.71184	21	9.77877	29	0.22123	9.93307	8	60	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	
1	9.71205	21	9.77906	29	0.22094	9.93299	8	59	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	9.71226	21	9.77935	29	0.22065	9.93291	8	58	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	9.71247	21	9.77963	29	0.22037	9.93284	8	57	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	9.71268	21	9.77992	28	0.22008	9.93276	7	56	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
5	9.71289	21	9.78020	29	0.21980	9.93269	8	55	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
6	9.71310	21	9.78049	28	0.21951	9.93261	8	54	6	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
7	9.71331	21	9.78077	29	0.21923	9.93253	7	53	7	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
8	9.71352	21	9.78106	29	0.21894	9.93246	8	52	8	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
9	9.71373	20	9.78135	28	0.21865	9.93238	8	51	9	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
10	9.71393	21	9.78163	29	0.21837	9.93230	7	50	10	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
11	9.71414	21	9.78192	28	0.21808	9.93223	8	49	11	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
12	9.71435	21	9.78220	29	0.21780	9.93215	8	48	12	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
13	9.71456	21	9.78249	28	0.21751	9.93207	7	47	13	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
14	9.71477	21	9.78277	29	0.21723	9.93200	8	46	14	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
15	9.71498	21	9.78306	28	0.21694	9.93192	8	45	15	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
16	9.71519	20	9.78334	29	0.21666	9.93184	7	44	16	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
17	9.71539	21	9.78363	28	0.21637	9.93177	8	43	17	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
18	9.71560	21	9.78391	28	0.21609	9.93169	8	42	18	9	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
19	9.71581	21	9.78419	29	0.21581	9.93161	7	41	19	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
20	9.71602	20	9.78448	28	0.21552	9.93154	8	40	20	10	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
21	9.71622	21	9.78476	29	0.21524	9.93146	8	39	21	10	10	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
22	9.71643	21	9.78505	28	0.21495	9.93138	7	38	22	11	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
23	9.71664	21	9.78533	29	0.21467	9.93131	8	37	23	11	11	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
24	9.71685	20	9.78562	28	0.21438	9.93123	8	36	24	12	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
25	9.71705	21	9.78590	28	0.21410	9.93115	7	35	25	12	12	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
26	9.71726	21	9.78618	29	0.21382	9.93108	8	34	26	13	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
27	9.71747	20	9.78647	28	0.21353	9.93100	8	33	27	13	13	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
28	9.71767	21	9.78675	29	0.21325	9.93092	8	32	28	14	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
29	9.71788	21	9.78704	28	0.21296	9.93084	7	31	29	14	14	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
30	9.71809	20	9.78732	28	0.21268	9.93077	8	30	30	14	14	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
31	9.71829	21	9.78760	29	0.21240	9.93069	8	29	31	15	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
32	9.71850	20	9.78789	28	0.21211	9.93061	8	28	32	15	15	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
33	9.71870	21	9.78817	28	0.21183	9.93053	7	27	33	16	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
34	9.71891	20	9.78845	29	0.21155	9.93046	8	26	34	16	16	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
35	9.71911	21	9.78874	28	0.21126	9.93038	8	25	35	17	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
36	9.71932	20	9.78902	28	0.21098	9.93030	8	24	36	17	17	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
37	9.71952	21	9.78930	29	0.21070	9.93022	8	23	37	18	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
38	9.71973	21	9.78959	28	0.21041	9.93014	7	22	38	18	18	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
39	9.71994	20	9.78987	28	0.21013	9.93007	8	21	39	19	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
40	9.72014	20	9.79015	28	0.20985	9.92999	8	20	40	19	19	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
41	9.72034	21	9.79043	29	0.20957	9.92991	8	19	41	20	19	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
42	9.72055	20	9.79072	28	0.20928	9.92983	7	18	42	20	20																												

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										P. P.							
	Sin	d.	Tang	d.c	Cotg	Cos	d.			29	28	27	26	25	24	23	22
0	9.72421	20	9.79579	28	0.20421	9.92842	8	60									
1	9.72441	20	9.79607	28	0.20393	9.92834	8	59	1	0	0	0	0	0	0	0	0
2	9.72461	21	9.79635	28	0.20365	9.92826	8	58	2	1	1	1	1	1	1	0	0
3	9.72482	20	9.79663	28	0.20337	9.92818	8	57	3	1	1	1	1	1	1	0	0
4	9.72502	20	9.79691	28	0.20309	9.92810	7	56	4	2	2	2	1	1	1	1	1
5	9.72522	20	9.79719	28	0.20281	9.92803	8	55	5	2	2	2	2	2	2	1	1
6	9.72542	20	9.79747	29	0.20253	9.92795	8	54	6	3	3	3	2	2	2	1	1
7	9.72562	20	9.79776	28	0.20224	9.92787	8	53	7	3	3	3	2	2	2	1	1
8	9.72582	20	9.79804	28	0.20196	9.92779	8	52	8	4	4	4	3	3	3	1	1
9	9.72602	20	9.79832	28	0.20168	9.92771	8	51	9	4	4	4	3	3	3	1	1
10	9.72622	21	9.79860	28	0.20140	9.92763	8	50	10	5	5	4	3	3	3	1	1
11	9.72643	20	9.79888	28	0.20112	9.92755	8	49	11	5	5	5	4	4	3	2	1
12	9.72663	20	9.79916	28	0.20084	9.92747	8	48	12	6	6	5	4	4	4	2	2
13	9.72683	20	9.79944	28	0.20056	9.92739	8	47	13	6	6	6	5	4	4	2	2
14	9.72703	20	9.79972	28	0.20028	9.92731	8	46	14	7	7	6	5	5	4	2	2
15	9.72723	20	9.80000	28	0.20000	9.92723	8	45	15	7	7	7	5	5	5	2	2
16	9.72743	20	9.80028	28	0.19972	9.92715	8	44	16	8	7	7	6	5	5	2	2
17	9.72763	20	9.80056	28	0.19944	9.92707	8	43	17	8	8	8	6	6	5	3	2
18	9.72783	20	9.80084	28	0.19916	9.92699	8	42	18	9	8	8	6	6	6	3	2
19	9.72803	20	9.80112	28	0.19888	9.92691	8	41	19	9	9	9	7	6	6	3	3
20	9.72823	20	9.80140	28	0.19860	9.92683	8	40	20	10	9	9	7	7	6	3	3
21	9.72843	20	9.80168	27	0.19832	9.92675	8	39	21	10	10	9	7	7	7	3	3
22	9.72863	20	9.80195	28	0.19805	9.92667	8	38	22	11	10	10	8	7	7	3	3
23	9.72883	19	9.80223	28	0.19777	9.92659	8	37	23	11	11	10	8	8	7	3	3
24	9.72902	20	9.80251	28	0.19749	9.92651	8	36	24	12	11	11	8	8	8	4	3
25	9.72922	20	9.80279	28	0.19721	9.92643	8	35	25	12	12	11	9	8	8	4	3
26	9.72942	20	9.80307	28	0.19693	9.92635	8	34	26	13	12	12	9	9	8	4	3
27	9.72962	20	9.80335	28	0.19665	9.92627	8	33	27	13	13	12	9	9	9	4	4
28	9.72982	20	9.80363	28	0.19637	9.92619	8	32	28	14	13	13	10	9	9	4	4
29	9.73002	20	9.80391	28	0.19609	9.92611	8	31	29	14	14	13	10	10	9	4	4
30	9.73022	19	9.80419	28	0.19581	9.92603	8	30	30	14	14	13	10	10	9	4	4
31	9.73041	20	9.80447	27	0.19553	9.92595	8	29	31	15	14	14	11	10	10	5	4
32	9.73061	20	9.80474	28	0.19526	9.92587	8	28	32	15	15	14	11	11	10	5	4
33	9.73081	20	9.80502	28	0.19498	9.92579	8	27	33	16	15	15	12	11	10	5	4
34	9.73101	20	9.80530	28	0.19470	9.92571	8	26	34	16	16	15	12	11	11	5	5
35	9.73121	19	9.80558	28	0.19442	9.92563	8	25	35	17	16	16	12	12	11	5	5
36	9.73140	20	9.80586	28	0.19414	9.92555	9	24	36	17	17	16	13	12	11	5	5
37	9.73160	20	9.80614	28	0.19386	9.92546	8	23	37	18	17	17	13	12	12	6	5
38	9.73180	20	9.80642	27	0.19358	9.92538	8	22	38	18	18	17	13	13	12	6	5
39	9.73200	19	9.80669	28	0.19331	9.92530	8	21	39	19	18	18	14	13	12	6	5
40	9.73219	20	9.80697	28	0.19303	9.92522	8	20	40	19	19	18	14	13	13	6	5
41	9.73239	20	9.80725	28	0.19275	9.92514	8	19	41	20	19	18	14	14	13	6	5
42	9.73259	19	9.80753	28	0.19247	9.92506	8	18	42	20	20	19	15	14	13	6	6
43	9.73278	20	9.80781	27	0.19219	9.92498	8	17	43	21	20	19	15	14	14	6	6
44	9.73298	20	9.80808	28	0.19192	9.92490	8	16	44	21	21	20	15	15	14	7	6
45	9.73318	19	9.80836	28	0.19164	9.92482	9	15	45	22	21	20	16	15	14	7	6
46	9.73337	20	9.80864	28	0.19136	9.92473	8	14	46	22	21	21	16	15	15	7	6
47	9.73357	20	9.80892	27	0.19108	9.92465	8	13	47	23	22	21	16	16	15	7	6
48	9.73377	19	9.80919	28	0.19081	9.92457	8	12	48	23	22	22	17	16	15	7	6
49	9.73396	20	9.80947	28	0.19053	9.92449	8	11	49	24	23	22	17	16	16	7	7
50	9.73416	19	9.80975	28	0.19025	9.92441	8	10	50	24	23	22	17	17	16	7	7
51	9.73435	20	9.81003	27	0.18997	9.92433	8	9	51	25	24	23	18	17	16	8	7
52	9.73455	19	9.81030	28	0.18970	9.92425	9	8	52	25	24	23	18	17	16	8	7
53	9.73474	20	9.81058	28	0.18942	9.92416	8	7	53	26	25	24	19	18	17	8	7
54	9.73494	19	9.81086	27	0.18914	9.92408	8	6	54	26	25	24	19	18	17	8	7
55	9.73513	20	9.81113	28	0.18887	9.92400	8	5	55	27	26	25	19	18	17	8	7
56	9.73533	19	9.81141	28	0.18859	9.92392	8	4	56	27	26	25	20	19	18	8	7
57	9.73552	20	9.81169	27	0.18831	9.92384	8	3	57	28	27	26	20	19	18	9	8
58	9.73572	19	9.81196	28	0.18804	9.92376	9	2	58	28	27	26	20	19	18	9	8
59	9.73591	20	9.81224	28	0.18776	9.92367	8	1	59	29	28	27	21	20	19	9	8
60	9.73611		9.81252		0.18748	9.92359	0	0	60	29	28	27	21	20	19	9	8
	Cos	d.	Cotg	d.c	Tang	Sin	d.			P. P.							

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	Sin	d.	Tang	d.c	Cotg	Cos	d.			P. P.						
0	9.73611	19	9.81252	27	0.18748	9.92359	8	60		28	27	26	19	18	9	8
1	9.73630	20	9.81279	28	0.18721	9.92351	8	59	1	0	0	0	0	0	0	0
2	9.73650	19	9.81307	28	0.18693	9.92343	8	58	2	1	1	1	1	1	0	0
3	9.73669	20	9.81335	27	0.18665	9.92335	9	57	3	1	1	1	1	1	0	0
4	9.73689	19	9.81362	28	0.18638	9.92326	8	56	4	2	2	1	1	1	1	1
5	9.73708	19	9.81390	28	0.18610	9.92318	8	55	5	2	2	2	2	1	1	1
6	9.73727	20	9.81418	27	0.18582	9.92310	8	54	6	3	3	2	2	2	1	1
7	9.73747	19	9.81445	28	0.18555	9.92302	9	53	7	3	3	2	2	2	1	1
8	9.73766	19	9.81473	27	0.18527	9.92293	8	52	8	4	4	3	3	2	1	1
9	9.73785	20	9.81500	28	0.18500	9.92285	8	51	9	4	4	3	3	3	1	1
10	9.73805	19	9.81528	28	0.18472	9.92277	8	50	10	5	4	3	3	3	1	1
11	9.73824	19	9.81556	27	0.18444	9.92269	9	49	11	5	5	4	3	3	2	1
12	9.73843	20	9.81583	28	0.18417	9.92260	8	48	12	6	5	4	4	4	2	2
13	9.73863	19	9.81611	27	0.18389	9.92252	8	47	13	6	6	4	4	4	2	2
14	9.73882	19	9.81638	28	0.18362	9.92244	9	46	14	7	6	5	4	4	2	2
15	9.73901	20	9.81666	27	0.18334	9.92235	8	45	15	7	7	5	5	4	2	2
16	9.73921	19	9.81693	28	0.18307	9.92227	8	44	16	7	7	5	5	5	2	2
17	9.73940	19	9.81721	27	0.18279	9.92219	8	43	17	8	8	6	5	5	3	2
18	9.73959	19	9.81748	28	0.18252	9.92211	9	42	18	8	8	6	6	5	3	2
19	9.73978	19	9.81776	27	0.18224	9.92202	8	41	19	9	9	6	6	6	3	3
20	9.73997	20	9.81803	28	0.18197	9.92194	8	40	20	9	9	7	6	6	3	3
21	9.74017	19	9.81831	27	0.18169	9.92186	9	39	21	10	9	7	7	6	3	3
22	9.74036	19	9.81858	28	0.18142	9.92177	8	38	22	10	10	7	7	7	3	3
23	9.74055	19	9.81886	27	0.18114	9.92169	8	37	23	11	10	8	7	7	3	3
24	9.74074	19	9.81913	28	0.18087	9.92161	9	36	24	11	11	8	8	7	4	3
25	9.74093	20	9.81941	27	0.18059	9.92152	8	35	25	12	11	8	8	7	4	3
26	9.74113	19	9.81968	28	0.18032	9.92144	8	34	26	12	12	9	8	8	4	3
27	9.74132	19	9.81996	27	0.18004	9.92136	9	33	27	13	12	9	9	8	4	4
28	9.74151	19	9.82023	28	0.17977	9.92127	8	32	28	13	13	9	9	8	4	4
29	9.74170	19	9.82051	27	0.17949	9.92119	8	31	29	14	13	10	9	9	4	4
30	9.74189	19	9.82078	28	0.17922	9.92111	9	30	30	14	13	10	9	9	4	4
31	9.74208	19	9.82106	27	0.17894	9.92102	8	29	31	14	14	10	10	9	5	4
32	9.74227	19	9.82133	28	0.17867	9.92094	8	28	32	15	14	11	10	10	5	4
33	9.74246	19	9.82161	27	0.17839	9.92086	9	27	33	15	15	11	10	10	5	4
34	9.74265	19	9.82188	27	0.17812	9.92077	8	26	34	16	15	11	11	10	5	5
35	9.74284	19	9.82215	28	0.17785	9.92069	9	25	35	16	16	12	11	10	5	5
36	9.74303	19	9.82243	27	0.17757	9.92060	8	24	36	17	16	12	11	11	5	5
37	9.74322	19	9.82270	28	0.17730	9.92052	8	23	37	17	17	12	12	11	6	5
38	9.74341	19	9.82298	27	0.17702	9.92044	9	22	38	18	17	13	12	11	6	5
39	9.74360	19	9.82325	27	0.17675	9.92035	8	21	39	18	18	13	12	12	6	5
40	9.74379	19	9.82352	28	0.17648	9.92027	9	20	40	19	18	13	13	12	6	5
41	9.74398	19	9.82380	27	0.17620	9.92018	8	19	41	19	18	14	13	12	6	5
42	9.74417	19	9.82407	28	0.17593	9.92010	8	18	42	20	19	14	13	13	6	6
43	9.74436	19	9.82435	27	0.17565	9.92002	9	17	43	20	19	14	14	13	6	6
44	9.74455	19	9.82462	27	0.17538	9.91993	8	16	44	21	20	15	14	13	7	6
45	9.74474	19	9.82489	28	0.17511	9.91985	9	15	45	21	20	15	14	13	7	6
46	9.74493	19	9.82517	27	0.17483	9.91976	8	14	46	21	21	15	15	14	7	6
47	9.74512	19	9.82544	27	0.17456	9.91968	9	13	47	22	21	16	15	14	7	6
48	9.74531	18	9.82571	28	0.17429	9.91959	8	12	48	22	22	16	15	14	7	6
49	9.74549	19	9.82599	27	0.17401	9.91951	9	11	49	23	22	16	16	15	7	7
50	9.74568	19	9.82626	27	0.17374	9.91942	8	10	50	23	22	17	16	15	7	7
51	9.74587	19	9.82653	28	0.17347	9.91934	9	9	51	24	23	17	16	15	8	7
52	9.74606	19	9.82681	27	0.17319	9.91925	8	8	52	24	23	17	16	16	8	7
53	9.74625	19	9.82708	27	0.17292	9.91917	9	7	53	25	24	18	17	16	8	7
54	9.74644	18	9.82735	27	0.17265	9.91908	8	6	54	25	24	18	17	16	8	7
55	9.74662	19	9.82762	28	0.17238	9.91900	9	5	55	26	25	18	17	16	8	7
56	9.74681	19	9.82790	27	0.17210	9.91891	8	4	56	26	25	19	18	17	8	7
57	9.74700	19	9.82817	27	0.17183	9.91883	9	3	57	27	26	19	18	17	9	8
58	9.74719	18	9.82844	27	0.17156	9.91874	8	2	58	27	26	19	18	17	9	8
59	9.74737	19	9.82871	28	0.17129	9.91866	9	1	59	28	27	20	19	18	9	8
60	9.74756		9.82899		0.17101	9.91857		0	60	28	27	20	19	18	9	8
	Cos	d.	Cotg	d.c	Tang	Sin	d.			P. P.						

	Sin	d.	Tang	d.c	Cotg	Cos	d.			P. P.							
0	9.74756	19	9.82899	27	0.17101	9.91857	8	60		28	27	26	19	18	9	8	
1	9.74775	19	9.82926	27	0.17074	9.91849	9	59	1	0	0	0	0	0	0	0	
2	9.74794	18	9.82953	27	0.17047	9.91840	8	58	2	1	1	1	1	1	0	0	
3	9.74812	19	9.82980	28	0.17020	9.91832	9	57	3	1	1	1	1	1	0	0	
4	9.74831	19	9.83008	27	0.16992	9.91823	8	56	4	2	2	2	1	1	1	1	
5	9.74850	18	9.83035	27	0.16965	9.91815	9	55	5	2	2	2	2	1	1	1	
6	9.74868	19	9.83062	27	0.16938	9.91806	8	54	6	3	3	3	2	2	1	1	
7	9.74887	19	9.83089	28	0.16911	9.91798	9	53	7	3	3	3	2	2	1	1	
8	9.74906	18	9.83117	27	0.16883	9.91789	8	52	8	4	4	3	3	2	1	1	
9	9.74924	19	9.83144	27	0.16856	9.91781	9	51	9	4	4	4	3	3	1	1	
10	9.74943	18	9.83171	27	0.16829	9.91772	9	50	10	5	4	4	3	3	1	1	
11	9.74961	19	9.83198	27	0.16802	9.91763	8	49	11	5	5	5	3	3	2	1	
12	9.74980	19	9.83225	27	0.16775	9.91755	9	48	12	6	5	5	4	4	2	2	
13	9.74999	18	9.83252	28	0.16748	9.91746	8	47	13	6	6	6	4	4	2	2	
14	9.75017	19	9.83280	27	0.16720	9.91738	9	46	14	7	6	6	4	4	2	2	
15	9.75036	18	9.83307	27	0.16693	9.91729	9	45	15	7	7	6	5	4	2	2	
16	9.75054	19	9.83334	27	0.16666	9.91720	8	44	16	7	7	7	5	5	2	2	
17	9.75073	18	9.83361	27	0.16639	9.91712	9	43	17	8	8	7	5	5	3	2	
18	9.75091	19	9.83388	27	0.16612	9.91703	8	42	18	8	8	8	6	5	3	2	
19	9.75110	18	9.83415	27	0.16585	9.91695	9	41	19	9	9	8	6	6	3	3	
20	9.75128	19	9.83442	28	0.16558	9.91686	9	40	20	9	9	9	6	6	3	3	
21	9.75147	18	9.83470	27	0.16530	9.91677	8	39	21	10	9	9	7	6	3	3	
22	9.75165	19	9.83497	27	0.16503	9.91669	9	38	22	10	10	10	7	7	3	3	
23	9.75184	18	9.83524	27	0.16476	9.91660	9	37	23	11	10	10	7	7	3	3	
24	9.75202	19	9.83551	27	0.16449	9.91651	8	36	24	11	11	10	8	7	4	3	
25	9.75221	18	9.83578	27	0.16422	9.91643	9	35	25	12	11	11	8	7	4	3	
26	9.75239	19	9.83605	27	0.16395	9.91634	9	34	26	12	12	11	8	8	4	3	
27	9.75258	18	9.83632	27	0.16368	9.91625	8	33	27	13	12	12	9	8	4	4	
28	9.75276	18	9.83659	27	0.16341	9.91617	9	32	28	13	13	12	9	8	4	4	
29	9.75294	19	9.83686	27	0.16314	9.91608	9	31	29	14	13	13	9	9	4	4	
30	9.75313	18	9.83713	27	0.16287	9.91599	8	30	30	14	13	13	9	9	4	4	
31	9.75331	19	9.83740	28	0.16260	9.91591	9	29	31	14	14	13	10	9	5	4	
32	9.75350	18	9.83768	27	0.16232	9.91582	9	28	32	15	14	14	10	10	5	4	
33	9.75368	18	9.83795	27	0.16205	9.91573	8	27	33	15	15	14	10	10	5	4	
34	9.75386	19	9.83822	27	0.16178	9.91565	9	26	34	16	15	15	11	10	5	5	
35	9.75405	18	9.83849	27	0.16151	9.91556	9	25	35	16	16	15	11	10	5	5	
36	9.75423	18	9.83876	27	0.16124	9.91547	9	24	36	17	16	16	11	11	5	5	
37	9.75441	18	9.83903	27	0.16097	9.91538	8	23	37	17	17	16	12	11	6	5	
38	9.75459	19	9.83930	27	0.16070	9.91530	9	22	38	18	17	16	12	11	6	5	
39	9.75478	18	9.83957	27	0.16043	9.91521	9	21	39	18	18	17	12	12	6	5	
40	9.75496	18	9.83984	27	0.16016	9.91512	8	20	40	19	18	17	13	12	6	5	
41	9.75514	19	9.84011	27	0.15989	9.91504	9	19	41	19	18	18	13	12	6	5	
42	9.75533	18	9.84038	27	0.15962	9.91495	9	18	42	20	19	18	13	13	6	6	
43	9.75551	18	9.84065	27	0.15935	9.91486	9	17	43	20	19	19	14	13	6	6	
44	9.75569	18	9.84092	27	0.15908	9.91477	8	16	44	21	20	19	14	13	7	6	
45	9.75587	18	9.84119	27	0.15881	9.91469	9	15	45	21	20	19	14	13	7	6	
46	9.75605	19	9.84146	27	0.15854	9.91460	9	14	46	21	21	20	15	14	7	6	
47	9.75624	18	9.84173	27	0.15827	9.91451	9	13	47	22	21	20	15	14	7	6	
48	9.75642	18	9.84200	27	0.15800	9.91442	9	12	48	22	22	21	15	14	7	6	
49	9.75660	18	9.84227	27	0.15773	9.91433	8	11	49	23	22	21	16	15	7	7	
50	9.75678	18	9.84254	26	0.15746	9.91425	9	10	50	23	22	22	16	15	7	7	
51	9.75696	18	9.84280	27	0.15720	9.91416	9	9	51	24	23	22	16	15	8	7	
52	9.75714	19	9.84307	27	0.15693	9.91407	9	8	52	24	23	23	16	16	8	7	
53	9.75733	18	9.84334	27	0.15666	9.91398	9	7	53	25	24	23	17	16	8	7	
54	9.75751	18	9.84361	27	0.15639	9.91389	8	6	54	25	24	23	17	16	8	7	
55	9.75769	18	9.84388	27	0.15612	9.91381	9	5	55	26	25	24	17	16	8	7	
56	9.75787	18	9.84415	27	0.15585	9.91372	9	4	56	26	25	24	18	17	8	7	
57	9.75805	18	9.84442	27	0.15558	9.91363	9	3	57	27	26	25	18	17	9	8	
58	9.75823	18	9.84469	27	0.15531	9.91354	9	2	58	27	26	25	18	17	9	8	
59	9.75841	18	9.84496	27	0.15504	9.91345	9	1	59	28	27	26	19	18	9	8	
60	9.75859	18	9.84523	27	0.15477	9.91336	9	0	60	28	27	26	19	18	9	8	
	Cos	d.	Cotg	d.c	Tang	Sin	d.			P. P.							

	Sin	d.	Tang	d.c	Cotg	Cos	d.			P. P.						
0	9.75859	18	9.84523	27	0.15477	9.91336	8	60	27	26	18	17	16	15	14	13
1	9.75877	18	9.84550	27	0.15450	9.91328	8	59	1	0	0	0	0	0	0	0
2	9.75895	18	9.84576	26	0.15424	9.91319	9	58	2	1	1	1	1	0	0	0
3	9.75913	18	9.84603	27	0.15397	9.91310	9	57	3	1	1	1	1	0	0	0
4	9.75931	18	9.84630	27	0.15370	9.91301	9	56	4	2	2	1	1	1	1	1
5	9.75949	18	9.84657	27	0.15343	9.91292	9	55	5	2	2	1	1	1	1	1
6	9.75967	18	9.84684	27	0.15316	9.91283	9	54	6	3	3	2	2	1	1	1
7	9.75985	18	9.84711	27	0.15289	9.91274	8	53	7	3	3	2	2	1	1	1
8	9.76003	18	9.84738	26	0.15262	9.91266	9	52	8	4	3	2	2	1	1	1
9	9.76021	18	9.84764	27	0.15236	9.91257	9	51	9	4	4	3	3	1	1	1
10	9.76039	18	9.84791	27	0.15209	9.91248	9	50	10	4	4	3	3	2	1	1
11	9.76057	18	9.84818	27	0.15182	9.91239	9	49	11	5	5	3	3	2	2	1
12	9.76075	18	9.84845	27	0.15155	9.91230	9	48	12	5	5	4	3	2	2	2
13	9.76093	18	9.84872	27	0.15128	9.91221	9	47	13	6	6	4	4	2	2	2
14	9.76111	18	9.84899	26	0.15101	9.91212	9	46	14	6	6	4	4	2	2	2
15	9.76129	17	9.84925	27	0.15075	9.91203	9	45	15	7	6	4	4	2	2	2
16	9.76146	18	9.84952	27	0.15048	9.91194	9	44	16	7	7	5	5	3	2	2
17	9.76164	18	9.84979	27	0.15021	9.91185	9	43	17	8	7	5	5	3	3	2
18	9.76182	18	9.85006	27	0.14994	9.91176	9	42	18	8	8	5	5	3	3	2
19	9.76200	18	9.85033	26	0.14967	9.91167	9	41	19	9	8	6	5	3	3	3
20	9.76218	18	9.85059	27	0.14941	9.91158	9	40	20	9	9	6	6	3	3	3
21	9.76236	17	9.85086	27	0.14914	9.91149	8	39	21	9	9	6	6	3	3	3
22	9.76253	18	9.85113	27	0.14887	9.91141	9	38	22	10	10	7	6	4	3	3
23	9.76271	18	9.85140	26	0.14860	9.91132	9	37	23	10	10	7	7	4	3	3
24	9.76289	18	9.85166	27	0.14834	9.91123	9	36	24	11	10	7	7	4	4	3
25	9.76307	17	9.85193	27	0.14807	9.91114	9	35	25	11	11	7	7	4	4	3
26	9.76324	18	9.85220	27	0.14780	9.91105	9	34	26	12	11	8	7	4	4	3
27	9.76342	18	9.85247	26	0.14753	9.91096	9	33	27	12	12	8	8	4	4	4
28	9.76360	18	9.85273	27	0.14727	9.91087	9	32	28	13	12	8	8	5	4	4
29	9.76378	17	9.85300	27	0.14700	9.91078	9	31	29	13	13	9	8	5	4	4
30	9.76395	18	9.85327	27	0.14673	9.91069	9	30	30	13	13	9	8	5	4	4
31	9.76413	18	9.85354	26	0.14646	9.91060	9	29	31	14	13	9	9	5	5	4
32	9.76431	17	9.85380	27	0.14620	9.91051	9	28	32	14	14	10	9	5	5	4
33	9.76448	18	9.85407	27	0.14593	9.91042	9	27	33	15	14	10	9	5	5	4
34	9.76466	18	9.85434	26	0.14566	9.91033	10	26	34	15	15	10	10	6	5	5
35	9.76484	17	9.85460	27	0.14540	9.91023	9	25	35	16	15	10	10	6	5	5
36	9.76501	18	9.85487	27	0.14513	9.91014	9	24	36	16	16	11	10	6	5	5
37	9.76519	18	9.85514	26	0.14486	9.91005	9	23	37	17	16	11	10	6	6	5
38	9.76537	17	9.85540	27	0.14460	9.90996	9	22	38	17	16	11	11	6	6	5
39	9.76554	18	9.85567	27	0.14433	9.90987	9	21	39	18	17	12	11	6	6	5
40	9.76572	18	9.85594	26	0.14406	9.90978	9	20	40	18	17	12	11	7	6	5
41	9.76590	17	9.85620	27	0.14380	9.90969	9	19	41	18	18	12	12	7	6	5
42	9.76607	18	9.85647	27	0.14353	9.90960	9	18	42	19	18	13	12	7	6	6
43	9.76625	17	9.85674	26	0.14326	9.90951	9	17	43	19	19	13	12	7	6	6
44	9.76642	18	9.85700	27	0.14300	9.90942	9	16	44	20	19	13	12	7	7	6
45	9.76660	17	9.85727	27	0.14273	9.90933	9	15	45	20	19	13	13	7	7	6
46	9.76677	18	9.85754	26	0.14246	9.90924	9	14	46	21	20	14	13	8	7	6
47	9.76695	17	9.85780	27	0.14220	9.90915	9	13	47	21	20	14	13	8	7	6
48	9.76712	18	9.85807	27	0.14193	9.90906	10	12	48	22	21	14	14	8	7	6
49	9.76730	17	9.85834	26	0.14166	9.90896	9	11	49	22	21	15	14	8	7	7
50	9.76747	18	9.85860	27	0.14140	9.90887	9	10	50	22	22	15	14	8	7	7
51	9.76765	17	9.85887	26	0.14113	9.90878	9	9	51	23	22	15	14	8	8	7
52	9.76782	18	9.85913	27	0.14087	9.90869	9	8	52	23	23	16	15	9	8	7
53	9.76800	17	9.85940	27	0.14060	9.90860	9	7	53	24	23	16	15	9	8	7
54	9.76817	18	9.85967	26	0.14033	9.90851	9	6	54	24	23	16	15	9	8	7
55	9.76835	17	9.85993	27	0.14007	9.90842	10	5	55	25	24	16	16	9	8	7
56	9.76852	18	9.86020	26	0.13980	9.90832	9	4	56	25	24	17	16	9	8	7
57	9.76870	17	9.86046	27	0.13954	9.90823	9	3	57	26	25	17	16	9	9	8
58	9.76887	17	9.86073	27	0.13927	9.90814	9	2	58	26	25	17	16	10	9	8
59	9.76904	18	9.86100	26	0.13900	9.90805	9	1	59	27	26	18	17	10	9	8
60	9.76922		9.86126		0.13874	9.90796	9	0	60	27	26	18	17	10	9	8
	Cos	d.	Cotg	d.c	Tang	Sin	d.			P. P.						

,	Sin		d.	Tang		d.c	Cotg	Cos		d.	,	"	P. P.						
													27	26	18	17	16	10	9
0	9.76922	17		9.86126	27		0.13874	9.90796	9		60								
1	9.76939	18		9.86153	26		0.13847	9.90787	10		59	1	0	0	0	0	0	0	0
2	9.76957	17		9.86179	27		0.13821	9.90777	9		58	2	1	1	1	1	1	0	0
3	9.76974	17		9.86206	26		0.13794	9.90768	9		57	3	1	1	1	1	1	0	0
4	9.76991	18		9.86232	27		0.13768	9.90759	9		56	4	2	2	1	1	1	1	1
5	9.77009	17		9.86259	26		0.13741	9.90750	9		55	5	2	2	1	1	1	1	1
6	9.77026	17		9.86285	27		0.13715	9.90741	10		54	6	3	3	2	2	2	1	1
7	9.77043	18		9.86312	26		0.13688	9.90731	9		53	7	3	3	2	2	2	1	1
8	9.77061	17		9.86338	27		0.13662	9.90722	9		52	8	4	3	2	2	2	1	1
9	9.77078	17		9.86365	27		0.13635	9.90713	9		51	9	4	4	3	3	2	1	1
10	9.77095	17		9.86392	26		0.13608	9.90704	10		50	10	4	4	3	3	3	2	1
11	9.77112	18		9.86418	27		0.13582	9.90694	9		49	11	5	5	3	3	3	2	2
12	9.77130	17		9.86445	26		0.13555	9.90685	9		48	12	5	5	4	3	3	2	2
13	9.77147	17		9.86471	27		0.13529	9.90676	9		47	13	6	6	4	4	3	2	2
14	9.77164	17		9.86498	26		0.13502	9.90667	10		46	14	6	6	4	4	4	2	2
15	9.77181	18		9.86524	27		0.13476	9.90657	9		45	15	7	6	4	4	4	2	2
16	9.77199	17		9.86551	26		0.13449	9.90648	9		44	16	7	7	5	5	4	3	2
17	9.77216	17		9.86577	26		0.13423	9.90639	9		43	17	8	7	5	5	5	3	3
18	9.77233	17		9.86603	27		0.13397	9.90630	10		42	18	8	8	5	5	5	3	3
19	9.77250	18		9.86630	26		0.13370	9.90620	9		41	19	9	8	6	5	5	3	3
20	9.77268	17		9.86656	27		0.13344	9.90611	9		40	20	9	9	6	6	5	3	3
21	9.77285	17		9.86683	26		0.13317	9.90602	10		39	21	9	9	6	6	6	3	3
22	9.77302	17		9.86709	27		0.13291	9.90592	9		38	22	10	10	7	6	6	4	3
23	9.77319	17		9.86736	26		0.13264	9.90583	9		37	23	10	10	7	7	6	4	3
24	9.77336	17		9.86762	27		0.13238	9.90574	9		36	24	11	10	7	7	6	4	4
25	9.77353	17		9.86789	26		0.13211	9.90565	10		35	25	11	11	7	7	7	4	4
26	9.77370	17		9.86815	27		0.13185	9.90555	9		34	26	12	11	8	7	7	4	4
27	9.77387	18		9.86842	26		0.13158	9.90546	9		33	27	12	12	8	8	7	4	4
28	9.77405	17		9.86868	26		0.13132	9.90537	10		32	28	13	12	8	8	7	5	4
29	9.77422	17		9.86894	27		0.13106	9.90527	9		31	29	13	13	9	8	8	5	4
30	9.77439	17		9.86921	26		0.13079	9.90518	9		30	30	13	13	9	8	8	5	4
31	9.77456	17		9.86947	27		0.13053	9.90509	10		29	31	14	13	9	9	8	5	5
32	9.77473	17		9.86974	26		0.13026	9.90499	9		28	32	14	14	10	9	9	5	5
33	9.77490	17		9.87000	27		0.13000	9.90490	10		27	33	15	14	10	9	9	5	5
34	9.77507	17		9.87027	26		0.12973	9.90480	9		26	34	15	15	10	10	9	6	5
35	9.77524	17		9.87053	26		0.12947	9.90471	9		25	35	16	15	10	10	9	6	5
36	9.77541	17		9.87079	27		0.12921	9.90462	10		24	36	16	16	11	10	10	6	5
37	9.77558	17		9.87106	26		0.12894	9.90452	9		23	37	17	16	11	10	10	6	6
38	9.77575	17		9.87132	26		0.12868	9.90443	9		22	38	17	16	11	11	10	6	6
39	9.77592	17		9.87158	27		0.12842	9.90434	10		21	39	18	17	12	11	10	6	6
40	9.77609	17		9.87185	26		0.12815	9.90424	9		20	40	18	17	12	11	11	7	6
41	9.77626	17		9.87211	27		0.12789	9.90415	10		19	41	18	18	12	12	11	7	6
42	9.77643	17		9.87238	26		0.12762	9.90405	9		18	42	19	18	13	12	11	7	6
43	9.77660	17		9.87264	26		0.12736	9.90396	10		17	43	19	19	13	12	11	7	6
44	9.77677	17		9.87290	27		0.12710	9.90386	9		16	44	20	19	13	12	12	7	7
45	9.77694	17		9.87317	26		0.12683	9.90377	9		15	45	20	19	13	13	12	7	7
46	9.77711	17		9.87343	26		0.12657	9.90368	10		14	46	21	20	14	13	12	8	7
47	9.77728	16		9.87369	27		0.12631	9.90358	9		13	47	21	20	14	13	13	8	7
48	9.77744	17		9.87396	26		0.12604	9.90349	10		12	48	22	21	14	14	13	8	7
49	9.77761	17		9.87422	26		0.12578	9.90339	9		11	49	22	21	15	14	13	8	7
50	9.77778	17		9.87448	27		0.12552	9.90330	10		10	50	22	22	15	14	13	8	7
51	9.77795	17		9.87475	26		0.12525	9.90320	9		9	51	23	22	15	14	14	8	8
52	9.77812	17		9.87501	26		0.12499	9.90311	10		8	52	23	23	16	15	14	9	8
53	9.77829	17		9.87527	27		0.12473	9.90301	9		7	53	24	23	16	15	14	9	8
54	9.77846	16		9.87554	26		0.12446	9.90292	10		6	54	24	23	16	15	14	9	8
55	9.77862	17		9.87580	26		0.12420	9.90282	9		5	55	25	24	16	16	15	9	8
56	9.77879	17		9.87606	27		0.12394	9.90273	10		4	56	25	24	17	16	15	9	8
57	9.77896	17		9.87633	26		0.12367	9.90263	9		3	57	26	25	17	16	15	9	9
58	9.77913	17		9.87659	26		0.12341	9.90254	10		2	58	26	25	17	16	15	10	9
59	9.77930	16		9.87685	26		0.12315	9.90244	9		1	59	27	26	18	17	16	10	9
60	9.77946			9.87711			0.12289	9.90235			0	60	27	26	18	17	16	10	9
,	Cos		d.	Cotg		d.c	Tang	Sin		d.	,	"	P. P.						

	Sin	d.	Tang	d.c	Cotg	Cos	d.			P. P.						
0	9.77946	17	9.87711	27	0.12289	9.90235	10	60	1	27	26	17	16	15	10	9
1	9.77963	17	9.87738	26	0.12262	9.90225	9	59	1	0	0	0	0	0	0	0
2	9.77980	17	9.87764	26	0.12236	9.90216	10	58	2	1	1	1	1	0	0	0
3	9.77997	16	9.87790	27	0.12210	9.90206	9	57	3	1	1	1	1	1	0	0
4	9.78013	17	9.87817	26	0.12183	9.90197	10	56	4	2	2	1	1	1	1	1
5	9.78030	17	9.87843	26	0.12157	9.90187	9	55	5	2	2	1	1	1	1	1
6	9.78047	16	9.87869	26	0.12131	9.90178	10	54	6	3	3	2	2	1	1	1
7	9.78063	17	9.87895	27	0.12105	9.90168	9	53	7	3	3	2	2	2	1	1
8	9.78080	17	9.87922	26	0.12078	9.90159	10	52	8	4	3	2	2	2	1	1
9	9.78097	16	9.87948	26	0.12052	9.90149	10	51	9	4	4	3	2	2	1	1
10	9.78113	17	9.87974	26	0.12026	9.90139	9	50	10	4	4	3	3	2	2	1
11	9.78130	17	9.88000	27	0.12000	9.90130	10	49	11	5	5	3	3	3	2	2
12	9.78147	16	9.88027	26	0.11973	9.90120	9	48	12	5	5	3	3	3	2	2
13	9.78163	17	9.88053	26	0.11947	9.90111	10	47	13	6	6	4	3	3	2	2
14	9.78180	17	9.88079	26	0.11921	9.90101	10	46	14	6	6	4	4	3	2	2
15	9.78197	16	9.88105	26	0.11895	9.90091	9	45	15	7	6	4	4	4	2	2
16	9.78213	17	9.88131	27	0.11869	9.90082	10	44	16	7	7	5	4	4	3	2
17	9.78230	16	9.88158	26	0.11842	9.90072	9	43	17	8	7	5	5	4	3	3
18	9.78246	17	9.88184	26	0.11816	9.90063	10	42	18	8	8	5	5	4	3	3
19	9.78263	17	9.88210	26	0.11790	9.90053	10	41	19	9	8	5	5	5	3	3
20	9.78280	16	9.88236	26	0.11764	9.90043	9	40	20	9	9	6	5	5	3	3
21	9.78296	17	9.88262	27	0.11738	9.90034	10	39	21	9	9	6	6	5	3	3
22	9.78313	16	9.88289	26	0.11711	9.90024	10	38	22	10	10	6	6	5	4	3
23	9.78329	17	9.88315	26	0.11685	9.90014	9	37	23	10	10	7	6	6	4	3
24	9.78346	16	9.88341	26	0.11659	9.90005	10	36	24	11	10	7	6	6	4	4
25	9.78362	17	9.88367	26	0.11633	9.89995	10	35	25	11	11	7	7	6	4	4
26	9.78379	16	9.88393	27	0.11607	9.89985	9	34	26	12	11	7	7	6	4	4
27	9.78395	17	9.88420	26	0.11580	9.89976	10	33	27	12	12	8	7	7	4	4
28	9.78412	16	9.88446	26	0.11554	9.89966	10	32	28	13	12	8	7	7	5	4
29	9.78428	17	9.88472	26	0.11528	9.89956	9	31	29	13	13	8	8	7	5	4
30	9.78445	16	9.88498	26	0.11502	9.89947	10	30	30	13	13	8	8	7	5	4
31	9.78461	17	9.88524	26	0.11476	9.89937	10	29	31	14	13	9	8	8	5	5
32	9.78478	16	9.88550	27	0.11450	9.89927	9	28	32	14	14	9	9	8	5	5
33	9.78494	16	9.88577	26	0.11423	9.89918	10	27	33	15	14	9	9	8	5	5
34	9.78510	17	9.88603	26	0.11397	9.89908	10	26	34	15	15	10	9	8	6	5
35	9.78527	16	9.88629	26	0.11371	9.89898	10	25	35	16	15	10	9	9	6	5
36	9.78543	17	9.88655	26	0.11345	9.89888	9	24	36	16	16	10	10	9	6	5
37	9.78560	16	9.88681	26	0.11319	9.89879	10	23	37	17	16	10	10	9	6	6
38	9.78576	16	9.88707	26	0.11293	9.89869	10	22	38	17	16	11	10	9	6	6
39	9.78592	17	9.88733	26	0.11267	9.89859	10	21	39	18	17	11	10	10	6	6
40	9.78609	16	9.88759	27	0.11241	9.89849	9	20	40	18	17	11	11	10	7	6
41	9.78625	17	9.88786	26	0.11214	9.89840	10	19	41	18	18	12	11	10	7	6
42	9.78642	16	9.88812	26	0.11188	9.89830	10	18	42	19	18	12	11	10	7	6
43	9.78658	16	9.88838	26	0.11162	9.89820	10	17	43	19	19	12	11	11	7	6
44	9.78674	17	9.88864	26	0.11136	9.89810	9	16	44	20	19	12	12	11	7	7
45	9.78691	16	9.88890	26	0.11110	9.89801	10	15	45	20	19	13	12	11	7	7
46	9.78707	16	9.88916	26	0.11084	9.89791	10	14	46	21	20	13	12	11	8	7
47	9.78723	16	9.88942	26	0.11058	9.89781	10	13	47	21	20	13	13	12	8	7
48	9.78739	17	9.88968	26	0.11032	9.89771	10	12	48	22	21	14	13	12	8	7
49	9.78756	16	9.88994	26	0.11006	9.89761	9	11	49	22	21	14	13	12	8	7
50	9.78772	16	9.89020	26	0.10980	9.89752	10	10	50	22	22	14	13	12	8	7
51	9.78788	17	9.89046	27	0.10954	9.89742	10	9	51	23	22	14	14	13	8	8
52	9.78805	16	9.89073	26	0.10927	9.89732	10	8	52	23	23	15	14	13	9	8
53	9.78821	16	9.89099	26	0.10901	9.89722	10	7	53	24	23	15	14	13	9	8
54	9.78837	16	9.89125	26	0.10875	9.89712	10	6	54	24	23	15	14	13	9	8
55	9.78853	16	9.89151	26	0.10849	9.89702	9	5	55	25	24	16	15	14	9	8
56	9.78869	17	9.89177	26	0.10823	9.89693	10	4	56	25	24	16	15	14	9	8
57	9.78886	16	9.89203	26	0.10797	9.89683	10	3	57	26	25	16	15	14	9	9
58	9.78902	16	9.89229	26	0.10771	9.89673	10	2	58	26	25	16	15	14	10	9
59	9.78918	16	9.89255	26	0.10745	9.89663	10	1	59	27	26	17	16	15	10	9
60	9.78934		9.89281		0.10719	9.89653		0	60	27	26	17	16	15	10	9
	Cos	d.	Cotg	d.c	Tang	Sin	d.									

	Sin	d.	Tang	d.c	Cotg	Cos	d.			P. P.							
0	9.78934	16	9.89281	26	0.10719	9.89653	10	60		26	25	17	16	15	11	10	9
1	9.78950	17	9.89307	26	0.10693	9.89643	10	59	1	0	0	0	0	0	0	0	0
2	9.78957	16	9.89333	26	0.10667	9.89633	10	58	2	1	1	1	1	0	0	0	0
3	9.78983	16	9.89359	26	0.10641	9.89624	10	57	3	1	1	1	1	1	1	0	0
4	9.78999	16	9.89385	26	0.10615	9.89614	10	56	4	2	2	1	1	1	1	1	1
5	9.79015	16	9.89411	26	0.10589	9.89604	10	55	5	2	2	1	1	1	1	1	1
6	9.79031	16	9.89437	26	0.10563	9.89594	10	54	6	3	2	2	2	1	1	1	1
7	9.79047	16	9.89463	26	0.10537	9.89584	10	53	7	3	3	2	2	2	1	1	1
8	9.79063	16	9.89489	26	0.10511	9.89574	10	52	8	3	3	2	2	2	1	1	1
9	9.79079	16	9.89515	26	0.10485	9.89564	10	51	9	4	4	3	2	2	2	1	1
10	9.79095	16	9.89541	26	0.10459	9.89554	10	50	10	4	4	3	3	2	2	2	1
11	9.79111	17	9.89567	26	0.10433	9.89544	10	49	11	5	5	3	3	3	2	2	2
12	9.79128	16	9.89593	26	0.10407	9.89534	10	48	12	5	5	3	3	3	2	2	2
13	9.79144	16	9.89619	26	0.10381	9.89524	10	47	13	6	5	4	3	3	2	2	2
14	9.79160	16	9.89645	26	0.10355	9.89514	10	46	14	6	6	4	4	3	3	2	2
15	9.79176	16	9.89671	26	0.10329	9.89504	9	45	15	6	6	4	4	4	3	2	2
16	9.79192	16	9.89697	26	0.10303	9.89495	10	44	16	7	7	5	4	4	3	3	2
17	9.79208	16	9.89723	26	0.10277	9.89485	10	43	17	7	7	5	5	4	3	3	3
18	9.79224	16	9.89749	26	0.10251	9.89475	10	42	18	8	7	5	5	4	3	3	3
19	9.79240	16	9.89775	26	0.10225	9.89465	10	41	19	8	8	5	5	5	3	3	3
20	9.79256	16	9.89801	26	0.10199	9.89455	10	40	20	9	8	6	5	5	4	3	3
21	9.79272	16	9.89827	26	0.10173	9.89445	10	39	21	9	9	6	6	5	4	3	3
22	9.79288	16	9.89853	26	0.10147	9.89435	10	38	22	10	9	6	6	5	4	4	3
23	9.79304	15	9.89879	26	0.10121	9.89425	10	37	23	10	10	7	6	6	4	4	3
24	9.79319	16	9.89905	26	0.10095	9.89415	10	36	24	10	10	7	6	6	4	4	4
25	9.79335	16	9.89931	26	0.10069	9.89405	10	35	25	11	10	7	7	6	5	4	4
26	9.79351	16	9.89957	26	0.10043	9.89395	10	34	26	11	11	7	7	6	5	4	4
27	9.79367	16	9.89983	26	0.10017	9.89385	10	33	27	12	11	8	7	7	5	4	4
28	9.79383	16	9.90009	26	0.09991	9.89375	11	32	28	12	12	8	7	7	5	5	4
29	9.79399	16	9.90035	26	0.09965	9.89364	10	31	29	13	12	8	8	7	5	5	4
30	9.79415	16	9.90061	25	0.09939	9.89354	10	30	30	13	12	8	8	7	5	5	4
31	9.79431	16	9.90086	26	0.09914	9.89344	10	29	31	13	13	9	8	8	6	5	5
32	9.79447	16	9.90112	26	0.09888	9.89334	10	28	32	14	13	9	9	8	6	5	5
33	9.79463	15	9.90138	26	0.09862	9.89324	10	27	33	14	14	9	9	8	6	5	5
34	9.79478	16	9.90164	26	0.09836	9.89314	10	26	34	15	14	10	9	8	6	6	5
35	9.79494	16	9.90190	26	0.09810	9.89304	10	25	35	15	15	10	9	9	6	6	5
36	9.79510	16	9.90216	26	0.09784	9.89294	10	24	36	16	15	10	10	9	7	6	5
37	9.79526	16	9.90242	26	0.09758	9.89284	10	23	37	16	15	10	10	9	7	6	6
38	9.79542	16	9.90268	26	0.09732	9.89274	10	22	38	16	16	11	10	9	7	6	6
39	9.79558	15	9.90294	26	0.09706	9.89264	10	21	39	17	16	11	10	10	7	6	6
40	9.79573	16	9.90320	26	0.09680	9.89254	10	20	40	17	17	11	11	10	7	7	6
41	9.79589	16	9.90346	25	0.09654	9.89244	11	19	41	18	17	12	11	10	8	7	6
42	9.79605	16	9.90371	26	0.09629	9.89233	10	18	42	18	17	12	11	10	8	7	6
43	9.79621	15	9.90397	26	0.09603	9.89223	10	17	43	19	18	12	11	11	8	7	6
44	9.79636	16	9.90423	26	0.09577	9.89213	10	16	44	19	18	12	12	11	8	7	7
45	9.79652	16	9.90449	26	0.09551	9.89203	10	15	45	19	19	13	12	11	8	7	7
46	9.79668	16	9.90475	26	0.09525	9.89193	10	14	46	20	19	13	12	11	8	8	7
47	9.79684	15	9.90501	26	0.09499	9.89183	10	13	47	20	20	13	13	12	9	8	7
48	9.79699	16	9.90527	26	0.09473	9.89173	11	12	48	21	20	14	13	12	9	8	7
49	9.79715	16	9.90553	25	0.09447	9.89162	10	11	49	21	20	14	13	12	9	8	7
50	9.79731	15	9.90578	26	0.09422	9.89152	10	10	50	22	21	14	13	12	9	8	7
51	9.79746	16	9.90604	26	0.09396	9.89142	10	9	51	22	21	14	14	13	9	8	8
52	9.79762	16	9.90630	26	0.09370	9.89132	10	8	52	23	22	15	14	13	10	9	8
53	9.79778	15	9.90656	26	0.09344	9.89122	10	7	53	23	22	15	14	13	10	9	8
54	9.79793	16	9.90682	26	0.09318	9.89112	11	6	54	23	22	15	14	13	10	9	8
55	9.79809	16	9.90708	26	0.09292	9.89101	10	5	55	24	23	16	15	14	10	9	8
56	9.79825	15	9.90734	25	0.09266	9.89091	10	4	56	24	23	16	15	14	10	9	8
57	9.79840	16	9.90759	26	0.09241	9.89081	10	3	57	25	24	16	15	14	10	9	9
58	9.79856	16	9.90785	26	0.09215	9.89071	11	2	58	25	24	16	15	14	11	10	9
59	9.79872	15	9.90811	26	0.09189	9.89060	10	1	59	26	25	17	16	15	11	10	9
60	9.79887		9.90837		0.09163	9.89050		0	60	26	25	17	16	15	11	10	9
	Cos	d.	Cotg	d.c	Tang	Sin	d.			P. P.							

	Sin	d.	Tang	d.c	Cotg	Cos	d.			P. P.					
0	9.79887	16	9.90837	26	0.09163	9.89050	10	60		26	25	16	15	11	10
1	9.79903	15	9.90863	26	0.09137	9.89040	10	59	1	0	0	0	0	0	0
2	9.79918	16	9.90889	25	0.09111	9.89030	10	58	2	1	1	1	0	0	0
3	9.79934	16	9.90914	26	0.09086	9.89020	11	57	3	1	1	1	1	1	0
4	9.79950	15	9.90940	26	0.09060	9.89009	10	56	4	2	2	1	1	1	1
5	9.79965	16	9.90966	26	0.09034	9.88999	10	55	5	2	2	1	1	1	1
6	9.79981	15	9.90992	26	0.09008	9.88989	11	54	6	3	2	2	1	1	1
7	9.79996	16	9.91018	25	0.08982	9.88978	10	53	7	3	3	2	2	1	1
8	9.80012	15	9.91043	26	0.08957	9.88968	10	52	8	3	3	2	2	1	1
9	9.80027	16	9.91069	26	0.08931	9.88958	10	51	9	4	4	2	2	2	1
10	9.80043	15	9.91095	26	0.08905	9.88948	11	50	10	4	4	3	2	2	2
11	9.80058	16	9.91121	26	0.08879	9.88937	10	49	11	5	5	3	3	2	2
12	9.80074	15	9.91147	25	0.08853	9.88927	10	48	12	5	5	2	3	2	2
13	9.80089	16	9.91172	26	0.08828	9.88917	11	47	13	6	5	3	3	2	2
14	9.80105	15	9.91198	26	0.08802	9.88906	10	46	14	6	6	4	3	3	2
15	9.80120	16	9.91224	26	0.08776	9.88896	10	45	15	6	6	4	4	3	2
16	9.80136	15	9.91250	26	0.08750	9.88886	11	44	16	7	7	4	4	3	3
17	9.80151	16	9.91276	25	0.08724	9.88875	10	43	17	7	7	5	4	3	3
18	9.80166	15	9.91301	26	0.08699	9.88865	10	42	18	8	7	5	4	3	3
19	9.80182	16	9.91327	26	0.08673	9.88855	11	41	19	8	8	5	5	3	3
20	9.80197	15	9.91353	26	0.08647	9.88844	10	40	20	9	8	5	5	4	3
21	9.80213	16	9.91379	25	0.08621	9.88834	10	39	21	9	9	6	5	4	3
22	9.80228	15	9.91404	26	0.08596	9.88824	11	38	22	10	9	6	5	4	4
23	9.80244	16	9.91430	26	0.08570	9.88813	10	37	23	10	10	6	6	4	4
24	9.80259	15	9.91456	26	0.08544	9.88803	10	36	24	10	10	6	6	4	4
25	9.80274	16	9.91482	25	0.08518	9.88793	11	35	25	11	10	7	6	5	4
26	9.80290	15	9.91507	26	0.08493	9.88782	10	34	26	11	11	7	6	5	4
27	9.80305	16	9.91533	26	0.08467	9.88772	11	33	27	12	11	7	7	5	4
28	9.80320	15	9.91559	26	0.08441	9.88761	10	32	28	12	12	7	7	5	5
29	9.80336	16	9.91585	25	0.08415	9.88751	10	31	29	13	12	8	7	5	5
30	9.80351	15	9.91610	26	0.08390	9.88741	11	30	30	13	12	8	7	5	5
31	9.80366	16	9.91636	26	0.08364	9.88730	10	29	31	13	13	8	8	6	5
32	9.80382	15	9.91662	26	0.08338	9.88720	11	28	32	14	13	9	8	6	5
33	9.80397	16	9.91688	25	0.08312	9.88709	10	27	33	14	14	9	8	6	5
34	9.80412	15	9.91713	26	0.08287	9.88699	11	26	34	15	14	9	8	6	6
35	9.80428	16	9.91739	26	0.08261	9.88688	10	25	35	15	15	9	9	6	6
36	9.80443	15	9.91765	26	0.08235	9.88678	10	24	36	16	15	10	9	7	6
37	9.80458	16	9.91791	25	0.08209	9.88668	11	23	37	16	15	10	9	7	6
38	9.80473	15	9.91816	26	0.08184	9.88657	10	22	38	16	16	10	9	7	6
39	9.80489	16	9.91842	26	0.08158	9.88647	11	21	39	17	16	10	10	7	6
40	9.80504	15	9.91868	25	0.08132	9.88636	10	20	40	17	17	11	10	7	7
41	9.80519	16	9.91893	26	0.08107	9.88626	11	19	41	18	17	11	10	8	7
42	9.80534	15	9.91919	26	0.08081	9.88615	10	18	42	18	17	11	10	8	7
43	9.80550	16	9.91945	26	0.08055	9.88605	11	17	43	19	18	11	11	8	7
44	9.80565	15	9.91971	25	0.08029	9.88594	10	16	44	19	18	12	11	8	7
45	9.80580	16	9.91996	26	0.08004	9.88584	11	15	45	19	19	12	11	8	7
46	9.80595	15	9.92022	26	0.07978	9.88573	10	14	46	20	19	12	11	8	8
47	9.80610	16	9.92048	25	0.07952	9.88563	11	13	47	20	20	13	12	9	8
48	9.80625	15	9.92073	26	0.07927	9.88552	10	12	48	21	20	13	12	9	8
49	9.80641	16	9.92099	26	0.07901	9.88542	11	11	49	21	20	13	12	9	8
50	9.80656	15	9.92125	25	0.07875	9.88531	10	10	50	22	21	13	12	9	8
51	9.80671	16	9.92150	26	0.07850	9.88521	11	9	51	22	21	14	13	9	8
52	9.80686	15	9.92176	26	0.07824	9.88510	10	8	52	23	22	14	13	10	9
53	9.80701	16	9.92202	25	0.07798	9.88499	11	7	53	23	22	14	13	10	9
54	9.80716	15	9.92227	26	0.07773	9.88489	10	6	54	23	22	14	13	10	9
55	9.80731	16	9.92253	26	0.07747	9.88478	11	5	55	24	23	15	14	10	9
56	9.80746	15	9.92279	25	0.07721	9.88468	10	4	56	24	23	15	14	10	9
57	9.80762	16	9.92304	26	0.07696	9.88457	11	3	57	25	24	15	14	10	9
58	9.80777	15	9.92330	26	0.07670	9.88447	10	2	58	25	24	15	14	11	10
59	9.80792	16	9.92356	25	0.07644	9.88436	11	1	59	26	25	16	15	11	10
60	9.80807	15	9.92381	26	0.07619	9.88425	10	0	60	26	25	16	15	11	10
	Cos	d.	Cotg	d.c	Tang	Sin	d.			P. P.					

,	Sin	d.	Tang	d.c	Cotg	Cos	d.	,	"	P. P.					
										26	25	15	14	11	10
0	9.80807	15	9.92381	26	0.07619	9.88425	10	60							
1	9.80822	15	9.92407	26	0.07593	9.88415	11	59	1	0	0	0	0	0	0
2	9.80837	15	9.92433	26	0.07567	9.88404	11	58	2	1	1	0	0	0	0
3	9.80852	15	9.92458	25	0.07542	9.88394	10	57	3	1	1	1	1	1	0
4	9.80867	15	9.92484	26	0.07516	9.88383	11	56	4	2	2	1	1	1	1
5	9.80882	15	9.92510	26	0.07490	9.88372	11	55	5	2	2	1	1	1	1
6	9.80897	15	9.92535	25	0.07465	9.88362	10	54	6	3	2	1	1	1	1
7	9.80912	15	9.92561	26	0.07439	9.88351	11	53	7	3	3	2	2	1	1
8	9.80927	15	9.92587	26	0.07413	9.88340	11	52	8	3	3	2	2	1	1
9	9.80942	15	9.92612	25	0.07388	9.88330	10	51	9	4	4	2	2	2	1
10	9.80957	15	9.92638	26	0.07362	9.88319	11	50	10	4	4	2	2	2	2
11	9.80972	15	9.92663	25	0.07337	9.88308	11	49	11	5	5	3	3	2	2
12	9.80987	15	9.92689	26	0.07311	9.88298	10	48	12	5	5	3	3	2	2
13	9.81002	15	9.92715	25	0.07285	9.88287	11	47	13	6	5	3	3	2	2
14	9.81017	15	9.92740	26	0.07260	9.88276	11	46	14	6	6	3	3	3	2
15	9.81032	15	9.92766	25	0.07234	9.88266	10	45	15	6	6	4	3	3	2
16	9.81047	14	9.92792	26	0.07208	9.88255	11	44	16	7	7	4	4	3	3
17	9.81061	15	9.92817	25	0.07183	9.88244	11	43	17	7	7	4	4	3	3
18	9.81076	15	9.92843	26	0.07157	9.88234	10	42	18	8	7	4	4	3	3
19	9.81091	15	9.92868	25	0.07132	9.88223	11	41	19	8	8	5	4	3	3
20	9.81106	15	9.92894	26	0.07106	9.88212	11	40	20	9	8	5	5	4	3
21	9.81121	15	9.92920	25	0.07080	9.88201	10	39	21	9	9	5	5	4	3
22	9.81136	15	9.92945	26	0.07055	9.88191	11	38	22	10	9	5	5	4	4
23	9.81151	15	9.92971	25	0.07029	9.88180	11	37	23	10	10	6	5	4	4
24	9.81166	14	9.92996	26	0.07004	9.88169	11	36	24	10	10	6	6	4	4
25	9.81180	15	9.93022	25	0.06978	9.88158	10	35	25	11	10	6	6	5	4
26	9.81195	15	9.93048	26	0.06952	9.88148	11	34	26	11	11	6	6	5	4
27	9.81210	15	9.93073	25	0.06927	9.88137	11	33	27	12	11	7	6	5	4
28	9.81225	15	9.93099	26	0.06901	9.88126	11	32	28	12	12	7	7	5	5
29	9.81240	14	9.93124	25	0.06876	9.88115	10	31	29	13	12	7	7	5	5
30	9.81254	15	9.93150	26	0.06850	9.88105	11	30	30	13	12	7	7	5	5
31	9.81269	15	9.93175	25	0.06825	9.88094	11	29	31	13	13	8	7	6	5
32	9.81284	15	9.93201	26	0.06799	9.88083	11	28	32	14	13	8	7	6	5
33	9.81299	15	9.93227	25	0.06773	9.88072	11	27	33	14	14	8	8	6	5
34	9.81314	14	9.93252	26	0.06748	9.88061	10	26	34	15	14	8	8	6	6
35	9.81328	15	9.93278	25	0.06722	9.88051	11	25	35	15	15	9	8	6	6
36	9.81343	15	9.93303	26	0.06697	9.88040	11	24	36	16	15	9	8	7	6
37	9.81358	14	9.93329	25	0.06671	9.88029	11	23	37	16	15	9	9	7	6
38	9.81372	15	9.93354	26	0.06646	9.88018	11	22	38	16	16	9	9	7	6
39	9.81387	15	9.93380	25	0.06620	9.88007	11	21	39	17	16	10	9	7	6
40	9.81402	15	9.93406	26	0.06594	9.87996	11	20	40	17	17	10	9	7	7
41	9.81417	14	9.93431	25	0.06569	9.87985	10	19	41	18	17	10	10	8	7
42	9.81431	15	9.93457	26	0.06543	9.87975	11	18	42	18	17	10	10	8	7
43	9.81446	15	9.93482	25	0.06518	9.87964	11	17	43	19	18	11	10	8	7
44	9.81461	14	9.93508	26	0.06492	9.87953	11	16	44	19	18	11	10	8	7
45	9.81475	15	9.93533	25	0.06467	9.87942	11	15	45	19	19	11	10	8	7
46	9.81490	15	9.93559	26	0.06441	9.87931	11	14	46	20	19	11	11	8	8
47	9.81505	14	9.93584	25	0.06416	9.87920	11	13	47	20	20	12	11	9	8
48	9.81519	15	9.93610	26	0.06390	9.87909	11	12	48	21	20	12	11	9	8
49	9.81534	15	9.93636	25	0.06364	9.87898	11	11	49	21	20	12	11	9	8
50	9.81549	14	9.93661	26	0.06339	9.87887	10	10	50	22	21	12	12	9	8
51	9.81563	15	9.93687	25	0.06313	9.87877	11	9	51	22	21	13	12	9	8
52	9.81578	14	9.93712	26	0.06288	9.87866	11	8	52	23	22	13	12	10	9
53	9.81592	15	9.93738	25	0.06262	9.87855	11	7	53	23	22	13	12	10	9
54	9.81607	15	9.93763	26	0.06237	9.87844	11	6	54	23	22	13	13	10	9
55	9.81622	14	9.93789	25	0.06211	9.87833	11	5	55	24	23	14	13	10	9
56	9.81636	15	9.93814	26	0.06186	9.87822	11	4	56	24	23	14	13	10	9
57	9.81651	14	9.93840	25	0.06160	9.87811	11	3	57	25	24	14	13	10	9
58	9.81665	15	9.93865	26	0.06135	9.87800	11	2	58	25	24	14	14	11	10
59	9.81680	14	9.93891	25	0.06109	9.87789	11	1	59	26	25	15	14	11	10
60	9.81694		9.93916		0.06084	9.87778		0	60	26	25	15	14	11	10
,	Cos	d.	Cotg	d.c	Tang	Sin	d.	,	"	P. P.					

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	Sin	d.	Tang	d.c	Cotg	Cos	d.			P. P.					
0	9.81694		9.93916		0.06084	9.87778		60		26	25	15	14	12	11
1	9.81709	15	9.93942	26	0.06058	9.87767	11	59	1	0	0	0	0	0	0
2	9.81723	14	9.93967	25	0.06033	9.87756	11	58	2	1	1	0	0	0	0
3	9.81738	15	9.93993	26	0.06007	9.87745	11	57	3	1	1	1	1	1	1
4	9.81752	14	9.94018	25	0.05982	9.87734	11	56	4	2	2	1	1	1	1
5	9.81767	15	9.94044	26	0.05956	9.87723	11	55	5	2	2	1	1	1	1
6	9.81781	14	9.94069	25	0.05931	9.87712	11	54	6	3	2	1	1	1	1
7	9.81796	15	9.94095	26	0.05905	9.87701	11	53	7	3	3	2	2	1	1
8	9.81810	14	9.94120	25	0.05880	9.87690	11	52	8	3	3	2	2	2	1
9	9.81825	15	9.94146	26	0.05854	9.87679	11	51	9	4	4	2	2	2	2
10	9.81839	14	9.94171	25	0.05829	9.87668	11	50	10	4	4	2	2	2	2
11	9.81854	15	9.94197	26	0.05803	9.87657	11	49	11	5	5	3	3	2	2
12	9.81868	14	9.94222	25	0.05778	9.87646	11	48	12	5	5	3	3	2	2
13	9.81882	15	9.94248	26	0.05752	9.87635	11	47	13	6	5	3	3	3	2
14	9.81897	14	9.94273	25	0.05727	9.87624	11	46	14	6	6	3	3	3	3
15	9.81911	15	9.94299	26	0.05701	9.87613	12	45	15	6	6	4	3	3	3
16	9.81926	14	9.94324	25	0.05676	9.87601	11	44	16	7	7	4	4	3	3
17	9.81940	15	9.94350	26	0.05650	9.87590	11	43	17	7	7	4	4	3	3
18	9.81955	14	9.94375	25	0.05625	9.87579	11	42	18	8	7	4	4	4	3
19	9.81969	15	9.94401	26	0.05599	9.87568	11	41	19	8	8	5	4	4	3
20	9.81983	14	9.94426	25	0.05574	9.87557	11	40	20	9	8	5	5	4	4
21	9.81998	15	9.94452	26	0.05548	9.87546	11	39	21	9	9	5	5	4	4
22	9.82012	14	9.94477	25	0.05523	9.87535	11	38	22	10	9	5	5	4	4
23	9.82026	15	9.94503	26	0.05497	9.87524	11	37	23	10	10	6	5	5	4
24	9.82041	14	9.94528	25	0.05472	9.87513	12	36	24	10	10	6	6	5	4
25	9.82055	15	9.94554	26	0.05446	9.87501	11	35	25	11	10	6	6	5	5
26	9.82069	14	9.94579	25	0.05421	9.87490	11	34	26	11	11	6	6	5	5
27	9.82084	15	9.94604	26	0.05396	9.87479	11	33	27	12	11	7	6	5	5
28	9.82098	14	9.94630	25	0.05370	9.87468	11	32	28	12	12	7	7	6	5
29	9.82112	15	9.94655	26	0.05345	9.87457	11	31	29	13	12	7	7	6	5
30	9.82126	14	9.94681	25	0.05319	9.87446	12	30	30	13	12	7	7	6	5
31	9.82141	15	9.94706	26	0.05294	9.87434	11	29	31	13	13	8	7	6	6
32	9.82155	14	9.94732	25	0.05268	9.87423	11	28	32	14	13	8	7	6	6
33	9.82169	15	9.94757	26	0.05243	9.87412	11	27	33	14	14	8	8	7	6
34	9.82184	14	9.94783	25	0.05217	9.87401	11	26	34	15	14	8	8	7	6
35	9.82198	15	9.94808	26	0.05192	9.87390	12	25	35	15	15	9	8	7	6
36	9.82212	14	9.94834	25	0.05166	9.87378	11	24	36	16	15	9	8	7	7
37	9.82226	15	9.94859	26	0.05141	9.87367	11	23	37	16	15	9	9	7	7
38	9.82240	14	9.94884	25	0.05116	9.87356	11	22	38	16	16	9	9	8	7
39	9.82255	15	9.94910	26	0.05090	9.87345	11	21	39	17	16	10	9	8	7
40	9.82269	14	9.94935	25	0.05065	9.87334	12	20	40	17	17	10	9	8	7
41	9.82283	15	9.94961	26	0.05039	9.87322	11	19	41	18	17	10	10	8	8
42	9.82297	14	9.94986	25	0.05014	9.87311	11	18	42	18	17	10	10	8	8
43	9.82311	15	9.95012	26	0.04988	9.87300	12	17	43	19	18	11	10	9	8
44	9.82326	14	9.95037	25	0.04963	9.87288	11	16	44	19	18	11	10	9	8
45	9.82340	15	9.95062	26	0.04938	9.87277	11	15	45	19	19	11	10	9	8
46	9.82354	14	9.95088	25	0.04912	9.87266	11	14	46	20	19	11	11	9	8
47	9.82368	15	9.95113	26	0.04887	9.87255	12	13	47	20	20	12	11	9	9
48	9.82382	14	9.95139	25	0.04861	9.87243	11	12	48	21	20	12	11	10	9
49	9.82396	15	9.95164	26	0.04836	9.87232	11	11	49	21	20	12	11	10	9
50	9.82410	14	9.95190	25	0.04810	9.87221	12	10	50	22	21	12	12	10	9
51	9.82424	15	9.95215	26	0.04785	9.87209	11	9	51	22	21	13	12	10	9
52	9.82439	14	9.95240	25	0.04760	9.87198	11	8	52	23	22	13	12	10	10
53	9.82453	15	9.95266	26	0.04734	9.87187	12	7	53	23	22	13	12	11	10
54	9.82467	14	9.95291	25	0.04709	9.87175	11	6	54	23	22	13	13	11	10
55	9.82481	15	9.95317	26	0.04683	9.87164	11	5	55	24	23	14	13	11	10
56	9.82495	14	9.95342	25	0.04658	9.87153	12	4	56	24	23	14	13	11	10
57	9.82509	15	9.95368	26	0.04632	9.87141	11	3	57	25	24	14	13	11	10
58	9.82523	14	9.95393	25	0.04607	9.87130	11	2	58	25	24	14	14	12	11
59	9.82537	15	9.95418	26	0.04582	9.87119	12	1	59	26	25	15	14	12	11
60	9.82551	14	9.95444	25	0.04556	9.87107	11	0	60	26	25	15	14	12	11
	Cos	d.	Cotg	d.c	Tang	Sin	d.			P. P.					

	Sin	d.	Tang	d.c	Cotg	Cos	d.		"	P. P.					
0	9.82551		9.95444		0.04556	9.87107		60		26	25	14	13	12	11
1	9.82565	14	9.95469	25	0.04531	9.87096	11	59	1	0	0	0	0	0	0
2	9.82579	14	9.95495	26	0.04505	9.87085	11	58	2	1	1	0	0	0	0
3	9.82593	14	9.95520	25	0.04480	9.87073	11	57	3	1	1	1	1	1	1
4	9.82607	14	9.95545	26	0.04455	9.87062	12	56	4	2	2	1	1	1	1
5	9.82621	14	9.95571	25	0.04429	9.87050	11	55	5	2	2	1	1	1	1
6	9.82635	14	9.95596	26	0.04404	9.87039	11	54	6	3	2	1	1	1	1
7	9.82649	14	9.95622	25	0.04378	9.87028	12	53	7	3	3	2	2	1	1
8	9.82663	14	9.95647	25	0.04353	9.87016	11	52	8	3	3	2	2	2	1
9	9.82677	14	9.95672	26	0.04328	9.87005	12	51	9	4	4	2	2	2	2
10	9.82691	14	9.95698	25	0.04302	9.86993	11	50	10	4	4	2	2	2	2
11	9.82705	14	9.95723	25	0.04277	9.86982	12	49	11	5	5	3	2	2	2
12	9.82719	14	9.95748	26	0.04252	9.86970	11	48	12	5	5	3	3	2	2
13	9.82733	14	9.95774	25	0.04226	9.86959	12	47	13	6	5	3	3	3	2
14	9.82747	14	9.95799	26	0.04201	9.86947	11	46	14	6	6	3	3	3	3
15	9.82761	14	9.95825	25	0.04175	9.86936	12	45	15	6	6	3	3	3	3
16	9.82775	13	9.95850	25	0.04150	9.86924	11	44	16	7	7	4	3	3	3
17	9.82788	14	9.95875	26	0.04125	9.86913	11	43	17	7	7	4	4	3	3
18	9.82802	14	9.95901	25	0.04099	9.86902	12	42	18	8	7	4	4	4	3
19	9.82816	14	9.95926	26	0.04074	9.86890	11	41	19	8	8	4	4	4	3
20	9.82830	14	9.95952	25	0.04048	9.86879	12	40	20	9	8	5	4	4	4
21	9.82844	14	9.95977	25	0.04023	9.86867	12	39	21	9	9	5	5	4	4
22	9.82858	14	9.96002	26	0.03998	9.86855	11	38	22	10	9	5	5	4	4
23	9.82872	13	9.96028	25	0.03972	9.86844	12	37	23	10	10	5	5	5	4
24	9.82885	14	9.96053	25	0.03947	9.86832	11	36	24	10	10	6	5	5	4
25	9.82899	14	9.96078	26	0.03922	9.86821	12	35	25	11	10	6	5	5	5
26	9.82913	14	9.96104	25	0.03896	9.86809	11	34	26	11	11	6	6	5	5
27	9.82927	14	9.96129	26	0.03871	9.86798	12	33	27	12	11	6	6	5	5
28	9.82941	14	9.96155	25	0.03845	9.86786	11	32	28	12	12	7	6	6	5
29	9.82955	13	9.96180	25	0.03820	9.86775	12	31	29	13	12	7	6	6	5
30	9.82968	14	9.96205	26	0.03795	9.86763	11	30	30	13	12	7	6	6	5
31	9.82982	14	9.96231	25	0.03769	9.86752	12	29	31	13	13	7	7	6	6
32	9.82996	14	9.96256	25	0.03744	9.86740	12	28	32	14	13	7	7	6	6
33	9.83010	13	9.96281	26	0.03719	9.86728	11	27	33	14	14	8	7	7	6
34	9.83023	14	9.96307	25	0.03693	9.86717	12	26	34	15	14	8	7	7	6
35	9.83037	14	9.96332	25	0.03668	9.86705	11	25	35	15	15	8	8	7	6
36	9.83051	14	9.96357	26	0.03643	9.86694	12	24	36	16	15	8	8	7	7
37	9.83065	13	9.96383	25	0.03617	9.86682	12	23	37	16	15	9	8	7	7
38	9.83078	14	9.96408	25	0.03592	9.86670	11	22	38	16	16	9	8	8	7
39	9.83092	14	9.96433	26	0.03567	9.86659	12	21	39	17	16	9	8	8	7
40	9.83106	14	9.96459	25	0.03541	9.86647	12	20	40	17	17	9	9	8	7
41	9.83120	13	9.96484	26	0.03516	9.86635	11	19	41	18	17	10	9	8	8
42	9.83133	14	9.96510	25	0.03490	9.86624	12	18	42	18	17	10	9	8	8
43	9.83147	14	9.96535	25	0.03465	9.86612	12	17	43	19	18	10	9	9	8
44	9.83161	13	9.96560	26	0.03440	9.86600	11	16	44	19	18	10	10	9	8
45	9.83174	14	9.96586	25	0.03414	9.86589	12	15	45	19	19	10	10	9	8
46	9.83188	14	9.96611	25	0.03389	9.86577	12	14	46	20	19	11	10	9	8
47	9.83202	13	9.96636	26	0.03364	9.86565	11	13	47	20	20	11	10	9	9
48	9.83215	14	9.96662	25	0.03338	9.86554	12	12	48	21	20	11	10	10	9
49	9.83229	13	9.96687	25	0.03313	9.86542	12	11	49	21	20	11	11	10	9
50	9.83242	14	9.96712	26	0.03288	9.86530	12	10	50	22	21	12	11	10	9
51	9.83256	14	9.96738	25	0.03262	9.86518	11	9	51	22	21	12	11	10	9
52	9.83270	13	9.96763	25	0.03237	9.86507	12	8	52	23	22	12	11	10	10
53	9.83283	14	9.96788	26	0.03212	9.86495	12	7	53	23	22	12	11	11	10
54	9.83297	13	9.96814	25	0.03186	9.86483	11	6	54	23	22	13	12	11	10
55	9.83310	14	9.96839	25	0.03161	9.86472	12	5	55	24	23	13	12	11	10
56	9.83324	14	9.96864	26	0.03136	9.86460	12	4	56	24	23	13	12	11	10
57	9.83338	13	9.96890	25	0.03110	9.86448	12	3	57	25	24	13	12	11	10
58	9.83351	14	9.96915	25	0.03085	9.86436	11	2	58	25	24	14	13	12	11
59	9.83365	13	9.96940	26	0.03060	9.86425	12	1	59	26	25	14	13	12	11
60	9.83378		9.96966		0.03034	9.86413		0	60	26	25	14	13	12	11
	Cos	d.	Cotg	d.c	Tang	Sin	d.		"	P. P.					

	Sin	d.	Tang	d.c	Cotg	Cos	d.			P. P.						
0	9.83378	14	9.96966	25	0.03034	9.86413	12	60		26	25	14	13	12	11	
1	9.83392	13	9.96991	25	0.03009	9.86401	12	59	1	0	0	0	0	0	0	
2	9.83405	14	9.97016	25	0.02984	9.86389	12	58	2	1	1	0	0	0	0	
3	9.83419	13	9.97042	25	0.02958	9.86377	11	57	3	1	1	1	1	1	1	
4	9.83432	14	9.97067	25	0.02933	9.86366	12	56	4	2	2	1	1	1	1	
5	9.83446	13	9.97092	26	0.02908	9.86354	12	55	5	2	2	1	1	1	1	
6	9.83459	14	9.97118	25	0.02882	9.86342	12	54	6	3	2	1	1	1	1	
7	9.83473	13	9.97143	25	0.02857	9.86330	12	53	7	3	3	2	2	1	1	
8	9.83486	14	9.97168	25	0.02832	9.86318	12	52	8	3	3	2	2	2	1	
9	9.83500	13	9.97193	26	0.02807	9.86306	11	51	9	4	4	2	2	2	2	
10	9.83513	14	9.97219	25	0.02781	9.86295	12	50	10	4	4	2	2	2	2	
11	9.83527	13	9.97244	25	0.02756	9.86283	12	49	11	5	5	3	2	2	2	
12	9.83540	14	9.97269	26	0.02731	9.86271	12	48	12	5	5	3	3	2	2	
13	9.83554	13	9.97295	25	0.02705	9.86259	12	47	13	6	5	3	3	3	2	
14	9.83567	14	9.97320	25	0.02680	9.86247	12	46	14	6	6	3	3	3	3	
15	9.83581	13	9.97345	26	0.02655	9.86235	12	45	15	6	6	3	3	3	3	
16	9.83594	14	9.97371	25	0.02629	9.86223	12	44	16	7	7	4	3	3	3	
17	9.83608	13	9.97396	25	0.02604	9.86211	11	43	17	7	7	4	4	3	3	
18	9.83621	13	9.97421	26	0.02579	9.86200	12	42	18	8	7	4	4	4	3	
19	9.83634	14	9.97447	25	0.02553	9.86188	12	41	19	8	8	4	4	4	3	
20	9.83648	13	9.97472	25	0.02528	9.86176	12	40	20	9	8	5	4	4	4	
21	9.83661	13	9.97497	26	0.02503	9.86164	12	39	21	9	9	5	5	4	4	
22	9.83674	14	9.97523	25	0.02477	9.86152	12	38	22	10	9	5	5	4	4	
23	9.83688	13	9.97548	25	0.02452	9.86140	12	37	23	10	10	5	5	5	4	
24	9.83701	14	9.97573	25	0.02427	9.86128	12	36	24	10	10	6	5	5	4	
25	9.83715	13	9.97598	26	0.02402	9.86116	12	35	25	11	10	6	5	5	5	
26	9.83728	13	9.97624	25	0.02376	9.86104	12	34	26	11	11	6	6	5	5	
27	9.83741	14	9.97649	25	0.02351	9.86092	12	33	27	12	11	6	6	5	5	
28	9.83755	13	9.97674	26	0.02326	9.86080	12	32	28	12	12	7	6	6	5	
29	9.83768	13	9.97700	25	0.02300	9.86068	12	31	29	13	12	7	6	6	5	
30	9.83781	14	9.97725	25	0.02275	9.86056	12	30	30	13	12	7	6	6	5	
31	9.83795	13	9.97750	26	0.02250	9.86044	12	29	31	13	13	7	7	6	6	
32	9.83808	13	9.97776	25	0.02224	9.86032	12	28	32	14	13	7	7	6	6	
33	9.83821	13	9.97801	25	0.02199	9.86020	12	27	33	14	14	8	7	7	6	
34	9.83834	14	9.97826	25	0.02174	9.86008	12	26	34	15	14	8	7	7	6	
35	9.83848	13	9.97851	26	0.02149	9.85996	12	25	35	15	15	8	8	7	6	
36	9.83861	13	9.97877	25	0.02123	9.85984	12	24	36	16	15	8	8	7	7	
37	9.83874	13	9.97902	25	0.02098	9.85972	12	23	37	16	15	9	8	7	7	
38	9.83887	14	9.97927	26	0.02073	9.85960	12	22	38	16	16	9	8	8	7	
39	9.83901	13	9.97953	25	0.02047	9.85948	12	21	39	17	16	9	8	8	7	
40	9.83914	13	9.97978	25	0.02022	9.85936	12	20	40	17	17	9	9	8	7	
41	9.83927	13	9.98003	26	0.01997	9.85924	12	19	41	18	17	10	9	8	8	
42	9.83940	14	9.98029	25	0.01971	9.85912	12	18	42	18	17	10	9	8	8	
43	9.83954	13	9.98054	25	0.01946	9.85900	12	17	43	19	18	10	9	9	8	
44	9.83967	13	9.98079	25	0.01921	9.85888	12	16	44	19	18	10	10	9	8	
45	9.83980	13	9.98104	26	0.01896	9.85876	12	15	45	19	19	10	10	9	8	
46	9.83993	13	9.98130	25	0.01870	9.85864	13	14	46	20	19	11	10	9	8	
47	9.84006	14	9.98155	25	0.01845	9.85851	12	13	47	20	20	11	10	9	9	
48	9.84020	13	9.98180	26	0.01820	9.85839	12	12	48	21	20	11	10	10	9	
49	9.84033	13	9.98206	25	0.01794	9.85827	12	11	49	21	20	11	11	10	9	
50	9.84046	13	9.98231	25	0.01769	9.85815	12	10	50	22	21	12	11	10	9	
51	9.84059	13	9.98256	25	0.01744	9.85803	12	9	51	22	21	12	11	10	9	
52	9.84072	13	9.98281	26	0.01719	9.85791	12	8	52	23	22	12	11	10	10	
53	9.84085	13	9.98307	25	0.01693	9.85779	13	7	53	23	22	12	11	11	10	
54	9.84098	14	9.98332	25	0.01668	9.85766	12	6	54	23	22	13	12	11	10	
55	9.84112	13	9.98357	26	0.01643	9.85754	12	5	55	24	23	13	12	11	10	
56	9.84125	13	9.98383	25	0.01617	9.85742	12	4	56	24	23	13	12	11	10	
57	9.84138	13	9.98408	25	0.01592	9.85730	12	3	57	25	24	13	12	11	10	
58	9.84151	13	9.98433	25	0.01567	9.85718	12	2	58	25	24	14	13	12	11	
59	9.84164	13	9.98458	26	0.01542	9.85706	13	1	59	26	25	14	13	12	11	
60	9.84177		9.98484		0.01516	9.85693		0	60	26	25	14	13	12	11	
	Cos	d.	Cotg	d.c	Tang	Sin	d.			P. P.						

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										P. P.					
	Sin	d.	Tang	d.c	Cotg	Cos	d.			26	25	14	13	12	11
0	9.84177		9.98484		0.01516	9.85693		60							
1	9.84190	13	9.98509	25	0.01491	9.85681	12	59	1	0	0	0	0	0	0
2	9.84203	13	9.98534	25	0.01466	9.85669	12	58	2	1	1	0	0	0	0
3	9.84216	13	9.98560	25	0.01440	9.85657	12	57	3	1	1	1	1	1	1
4	9.84229	13	9.98585	25	0.01415	9.85645	13	56	4	2	2	1	1	1	1
5	9.84242	13	9.98610	25	0.01390	9.85632	12	55	5	2	2	1	1	1	1
6	9.84255	14	9.98635	26	0.01365	9.85620	12	54	6	3	2	1	1	1	1
7	9.84269	13	9.98661	25	0.01339	9.85608	12	53	7	3	3	2	2	1	1
8	9.84282	13	9.98686	25	0.01314	9.85596	13	52	8	3	3	2	2	2	1
9	9.84295	13	9.98711	26	0.01289	9.85583	12	51	9	4	4	2	2	2	2
10	9.84308	13	9.98737	25	0.01263	9.85571	12	50	10	4	4	2	2	2	2
11	9.84321	13	9.98762	25	0.01238	9.85559	12	49	11	5	5	3	2	2	2
12	9.84334	13	9.98787	25	0.01213	9.85547	13	48	12	5	5	3	3	2	2
13	9.84347	13	9.98812	26	0.01188	9.85534	12	47	13	6	5	3	3	3	2
14	9.84360	13	9.98838	25	0.01162	9.85522	12	46	14	6	6	3	3	3	3
15	9.84373	12	9.98863	25	0.01137	9.85510	13	45	15	6	6	3	3	3	3
16	9.84385	13	9.98888	25	0.01112	9.85497	12	44	16	7	7	4	3	3	3
17	9.84398	13	9.98913	26	0.01087	9.85485	12	43	17	7	7	4	4	3	3
18	9.84411	13	9.98939	25	0.01061	9.85473	13	42	18	8	7	4	4	4	3
19	9.84424	13	9.98964	25	0.01036	9.85460	12	41	19	8	8	4	4	4	3
20	9.84437	13	9.98989	26	0.01011	9.85448	12	40	20	9	8	5	4	4	4
21	9.84450	13	9.99015	25	0.00985	9.85436	13	39	21	9	9	5	5	4	4
22	9.84463	13	9.99040	25	0.00960	9.85423	12	38	22	10	9	5	5	4	4
23	9.84476	13	9.99065	25	0.00935	9.85411	12	37	23	10	10	5	5	5	4
24	9.84489	13	9.99090	26	0.00910	9.85399	13	36	24	10	10	6	5	5	4
25	9.84502	13	9.99116	25	0.00884	9.85386	12	35	25	11	10	6	5	5	5
26	9.84515	13	9.99141	25	0.00859	9.85374	13	34	26	11	11	6	6	5	5
27	9.84528	12	9.99166	25	0.00834	9.85361	12	33	27	12	11	6	6	5	5
28	9.84540	13	9.99191	26	0.00809	9.85349	12	32	28	12	12	7	6	6	5
29	9.84553	13	9.99217	25	0.00783	9.85337	13	31	29	13	12	7	6	6	5
30	9.84566	13	9.99242	25	0.00758	9.85324	12	30	30	13	12	7	6	6	5
31	9.84579	13	9.99267	26	0.00733	9.85312	13	29	31	13	13	7	7	6	6
32	9.84592	13	9.99293	25	0.00707	9.85299	12	28	32	14	13	7	7	6	6
33	9.84605	13	9.99318	25	0.00682	9.85287	13	27	33	14	14	8	7	7	6
34	9.84618	12	9.99343	25	0.00657	9.85274	12	26	34	15	14	8	7	7	6
35	9.84630	13	9.99368	26	0.00632	9.85262	12	25	35	15	15	8	8	7	6
36	9.84643	13	9.99394	25	0.00606	9.85250	13	24	36	16	15	8	8	7	7
37	9.84656	13	9.99419	25	0.00581	9.85237	12	23	37	16	15	9	8	7	7
38	9.84669	13	9.99444	25	0.00556	9.85225	13	22	38	16	16	9	8	8	7
39	9.84682	12	9.99469	26	0.00531	9.85212	12	21	39	17	16	9	8	8	7
40	9.84694	13	9.99495	25	0.00505	9.85200	13	20	40	17	17	9	9	8	7
41	9.84707	13	9.99520	25	0.00480	9.85187	12	19	41	18	17	10	9	8	8
42	9.84720	13	9.99545	25	0.00455	9.85175	13	18	42	18	17	10	9	8	8
43	9.84733	12	9.99570	26	0.00430	9.85162	12	17	43	19	18	10	9	9	8
44	9.84745	13	9.99596	25	0.00404	9.85150	13	16	44	19	18	10	10	9	8
45	9.84758	13	9.99621	25	0.00379	9.85137	12	15	45	19	19	10	10	9	8
46	9.84771	13	9.99646	26	0.00354	9.85125	13	14	46	20	19	11	10	9	8
47	9.84784	12	9.99672	25	0.00328	9.85112	12	13	47	20	20	11	10	9	9
48	9.84796	13	9.99697	25	0.00303	9.85100	13	12	48	21	20	11	10	10	9
49	9.84809	13	9.99722	25	0.00278	9.85087	13	11	49	21	20	11	11	10	9
50	9.84822	13	9.99747	26	0.00253	9.85074	12	10	50	22	21	12	11	10	9
51	9.84835	12	9.99773	25	0.00227	9.85062	13	9	51	22	21	12	11	10	9
52	9.84847	13	9.99798	25	0.00202	9.85049	12	8	52	23	22	12	11	10	10
53	9.84860	13	9.99823	25	0.00177	9.85037	13	7	53	23	22	12	11	11	10
54	9.84873	12	9.99848	26	0.00152	9.85024	12	6	54	23	22	13	12	11	10
55	9.84885	13	9.99874	25	0.00126	9.85012	13	5	55	24	23	13	12	11	10
56	9.84898	13	9.99899	25	0.00101	9.84999	13	4	56	24	23	13	12	11	10
57	9.84911	12	9.99924	25	0.00076	9.84986	12	3	57	25	24	13	12	11	10
58	9.84923	13	9.99949	26	0.00051	9.84974	13	2	58	25	24	14	13	12	11
59	9.84936	13	9.99975	25	0.00025	9.84961	12	1	59	26	25	14	13	12	11
60	9.84949		0.00000	25	0.00000	9.84949		0	60	26	25	14	13	12	11
	Cos	d.	Cotg	d.c	Tang	Sin	d.			P. P.					

45 GRAD.

III.

T a f e l

zur Berechnung

des

L o g a r i t h m e n

der

Summe oder Differenz

zweier Zahlen, welche selbst nur durch ihre Logarithmen
gegeben sind.

A.	P. P.	B.	d.	P. P.	C.	d.	P. P.	A.	P. P.	B.	d.	P. P.	C.	d.	P. P.
0.000	50	0.30103	50	1 1/2	0.30103	50	1 1/2	0.060	47	0.27207	47	1 1/2	0.33207	53	1 0/9
0.001	10 5/10	0.30053	50	2 2/10	0.30153	50	2 2/10	0.061	10 4/7	0.27160	47	2 2/3	0.33260	53	2 1/8
0.002	20 10/10	0.30003	50	3 3/10	0.30203	50	3 3/10	0.062	20 9/4	0.27114	46	3 3/4	0.33314	54	3 2/7
0.003	30 15/10	0.29953	50	4 4/10	0.30253	50	4 4/10	0.063	30 14/1	0.27067	47	4 4/5	0.33367	53	4 3/5
0.004	40 20/10	0.29903	50	5 5/10	0.30303	51	5 5/10	0.064	40 18/8	0.27021	46	5 5/6	0.33421	54	5 4/4
0.005	50 25/10	0.29854	49	6 6/10	0.30354	51	6 6/10	0.065	50 23/5	0.26974	47	6 6/8	0.33474	53	6 5/3
0.006	60 30/10	0.29804	50	7 7/10	0.30404	50	7 7/10	0.066	60 28/2	0.26928	46	7 7/9	0.33528	54	7 6/2
0.007	70 35/10	0.29754	50	8 8/10	0.30454	51	8 8/10	0.067	70 32/9	0.26882	46	8 9/10	0.33582	54	8 7/1
0.008	80 40/10	0.29705	49	9 9/10	0.30505	51	9 9/10	0.068	80 37/6	0.26836	46	10 11/3	0.33636	54	10 8/9
0.009	90 45/10	0.29655	50	10 10/10	0.30555	50	10 10/10	0.069	90 42/3	0.26790	46	20 22/6	0.33690	54	20 17/7
0.010		0.29606	49	20 20/10	0.30606	51	20 20/10	0.070		0.26744	46	30 33/8	0.33744	54	30 26/6
0.011		0.29556	50	30 30/10	0.30656	50	30 30/10	0.071		0.26699	46	40 45/1	0.33798	54	40 35/5
0.012	49	0.29507	49	40 40/10	0.30707	51	40 40/10	0.072	46	0.26652	46	50 44/3	0.33852	54	50 44/3
0.013	10 4/9	0.29458	49	1 1/10	0.30758	51	1 1/10	0.073	10 4/6	0.26606	46	1 1/2	0.33906	54	1 0/9
0.014	20 9/8	0.29409	49	2 2/10	0.30809	51	2 2/10	0.074	20 9/2	0.26560	46	2 2/3	0.33960	54	2 1/7
0.015	30 14/7	0.29359	50	3 3/10	0.30859	50	3 3/10	0.075	30 13/8	0.26515	45	3 3/5	0.34015	55	3 2/6
0.016	40 19/6	0.29310	49	4 4/10	0.30910	51	4 4/10	0.076	40 18/4	0.26469	46	4 4/7	0.34069	54	4 3/4
0.017	50 24/5	0.29261	49	5 5/10	0.30961	51	5 5/10	0.077	50 23/10	0.26423	46	5 5/9	0.34123	54	5 4/3
0.018	60 29/4	0.29212	49	6 6/10	0.31012	51	6 6/10	0.078	60 27/6	0.26378	45	6 7/10	0.34178	55	6 5/1
0.019	70 34/3	0.29163	48	7 7/10	0.31063	52	7 7/10	0.079	70 32/2	0.26332	45	7 8/2	0.34232	55	7 6/10
0.020	80 39/2	0.29115	49	8 8/10	0.31115	51	8 8/10	0.080	80 36/8	0.26287	45	8 9/4	0.34287	55	8 6/8
0.021	90 44/1	0.29066	49	9 9/10	0.31166	51	9 9/10	0.081	90 41/4	0.26242	45	9 10/6	0.34342	55	9 7/7
0.022		0.29017	49	10 10/10	0.31217	51	10 10/10	0.082		0.26196	45	10 11/7	0.34396	55	10 8/5
0.023		0.28968	49	20 20/8	0.31268	51	20 20/8	0.083		0.26151	45	20 23/5	0.34451	55	20 17/10
0.024	48	0.28920	48	30 31/2	0.31320	52	30 31/2	0.084	45	0.26106	45	30 35/2	0.34506	55	30 25/6
0.025	10 4/8	0.28871	49	40 41/6	0.31371	51	40 41/6	0.085	10 4/5	0.26061	45	40 47/10	0.34561	55	40 34/1
0.026	20 9/6	0.28822	49	1 1/10	0.31422	51	1 1/10	0.086	20 9/10	0.26016	45	50 48/9	0.34616	55	50 42/6
0.027	30 14/4	0.28774	48	2 2/10	0.31474	52	2 2/10	0.087	30 13/5	0.25970	44	1 1/2	0.34670	55	1 0/8
0.028	40 19/2	0.28726	48	3 3/10	0.31526	52	3 3/10	0.088	40 18/10	0.25926	44	2 2/4	0.34726	55	2 1/6
0.029	50 24/10	0.28677	49	4 4/10	0.31577	51	4 4/10	0.089	50 22/5	0.25881	45	3 3/7	0.34781	55	3 2/5
0.030	60 28/8	0.28629	48	5 5/10	0.31629	52	5 5/10	0.090	60 27/10	0.25836	45	4 4/9	0.34836	55	4 3/3
0.031	70 33/6	0.28581	48	6 6/10	0.31681	52	6 6/10	0.091	70 31/5	0.25791	45	5 6/1	0.34891	55	5 4/1
0.032	80 38/4	0.28532	49	7 7/10	0.31732	51	7 7/10	0.092	80 36/10	0.25746	45	6 7/3	0.34946	55	6 4/9
0.033	90 43/2	0.28484	48	8 8/10	0.31784	52	8 8/10	0.093	90 40/5	0.25701	45	7 8/6	0.35001	55	7 5/7
0.034		0.28436	48	9 9/10	0.31836	52	9 9/10	0.094		0.25657	45	8 9/8	0.35057	55	8 6/5
0.035		0.28388	48	10 10/8	0.31888	52	10 10/8	0.095		0.25612	45	9 11/10	0.35112	55	9 7/4
0.036	47	0.28340	48	20 21/7	0.31940	52	20 21/7	0.096	44	0.25568	44	10 12/2	0.35168	56	10 8/2
0.037	10 4/7	0.28292	47	30 32/5	0.31992	53	30 32/5	0.097	10 4/4	0.25523	45	20 24/4	0.35223	55	20 16/4
0.038	20 9/4	0.28245	47	40 43/3	0.32045	53	40 43/3	0.098	20 9/10	0.25479	44	30 36/7	0.35279	55	30 24/5
0.039	30 14/1	0.28197	48	50 46/2	0.32097	52	50 46/2	0.099	30 13/2	0.25434	45	40 48/9	0.35334	56	40 32/7
0.040	40 18/8	0.28149	48	1 1/10	0.32149	52	1 1/10	0.100	40 17/6	0.25390	44	50 48/9	0.35390	56	50 40/9
0.041	50 23/5	0.28101	48	2 2/10	0.32201	52	2 2/10	0.101	50 22/10	0.25346	44	1 1/3	0.35446	56	1 0/8
0.042	60 28/2	0.28054	47	3 3/10	0.32254	53	3 3/10	0.102	60 26/4	0.25302	44	2 2/5	0.35502	56	2 1/6
0.043	70 32/9	0.28006	48	4 4/10	0.32306	52	4 4/10	0.103	70 30/8	0.25258	44	3 3/8	0.35558	56	3 2/4
0.044	80 37/6	0.27959	47	5 5/10	0.32359	53	5 5/10	0.104	80 35/2	0.25214	44	4 5/1	0.35614	56	4 3/1
0.045	90 42/3	0.27911	47	6 6/10	0.32411	53	6 6/10	0.105	90 39/6	0.25170	44	5 6/4	0.35670	56	5 3/9
0.046		0.27864	47	7 7/10	0.32464	53	7 7/10	0.106		0.25126	44	6 7/6	0.35726	56	6 4/7
0.047		0.27817	47	8 8/10	0.32517	53	8 8/10	0.107		0.25082	44	7 8/9	0.35782	56	7 5/5
0.048	46	0.27769	48	9 9/10	0.32569	52	9 9/10	0.108	43	0.25038	44	8 10/2	0.35838	56	8 6/3
0.049	10 4/6	0.27722	47	10 10/1	0.32622	53	10 10/1	0.109	10 4/3	0.24994	44	9 11/5	0.35894	56	9 7/1
0.050	20 9/2	0.27675	47	10 11/3	0.32675	53	10 11/3	0.110	20 8/6	0.24950	44	10 12/7	0.35950	56	10 7/9
0.051	30 13/8	0.27628	47	20 22/6	0.32728	53	20 22/6	0.111	30 12/9	0.24907	43	20 25/5	0.36007	57	20 15/7
0.052	40 18/4	0.27581	47	30 33/8	0.32781	53	30 33/8	0.112	40 17/2	0.24863	44	30 38/2	0.36063	56	30 23/6
0.053	50 23/10	0.27534	47	40 45/1	0.32834	53	40 45/1	0.113	50 21/5	0.24819	44	40 50/9	0.36119	56	40 31/4
0.054	60 27/6	0.27487	47	50 47/10	0.32887	53	50 47/10	0.114	60 25/8	0.24776	43	50 48/9	0.36176	57	50 39/3
0.055	70 32/2	0.27440	47		0.32940	53		0.115	70 30/1	0.24733	43		0.36233	57	
0.056	80 36/8	0.27393	47		0.32993	53		0.116	80 34/4	0.24689	44		0.36289	57	
0.057	90 41/4	0.27346	46		0.33046	54		0.117	90 38/7	0.24646	43		0.36346	57	
0.058		0.27300	47		0.33100	53		0.118		0.24603	44		0.36403	56	
0.059		0.27253	46		0.33153	54		0.119		0.24559	43		0.36459	57	
0.060		0.27207			0.33207			0.120		0.24516			0.36516		
A.	P. P.	B.	d.	P. P.	C.	d.	P. P.	A.	P. P.	B.	d.	P. P.	C.	d.	P. P.

A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.
O.120	44	0.24516	43	44	0.36516	56		O.180	40	0.22029	40	40	0.40029	60	60
O.121	10 4/4	0.24473	43	1 1/3	0.36573	57	1 0/8	O.181	10 4/0	0.21989	40	1 1/5	0.40089	60	1 0/7
O.122	20 8/8	0.24430	43	2 2/5	0.36630	57	2 1/6	O.182	20 8/0	0.21949	40	2 3/0	0.40149	60	2 1/3
	30 13/2		43	3 3/8		57	3 2/4		30 12/0		39	3 4/5		61	3 2/0
O.123	40 17/6	0.24387	43	4 5/1	0.36687	57	4 3/1	O.183	40 16/0	0.21910	40	4 6/0	0.40210	60	4 2/7
O.124	50 22/0	0.24344	43	5 6/4	0.36744	57	5 3/9	O.184	50 20/0	0.21870	39	5 7/5	0.40270	61	5 3/3
O.125	60 26/4	0.24301	43	6 7/6	0.36801	57	6 4/7	O.185	60 24/0	0.21831	40	6 9/0	0.40331	61	6 4/0
O.126	70 30/8	0.24258	43	7 8/9		57	7 5/5	O.186	70 28/0	0.21791	39	7 10/5	0.40391	61	7 4/7
O.127	80 35/2	0.24216	42	8 10/2	0.36858	58	8 6/3	O.187	80 32/0	0.21752	39	8 12/0	0.40452	61	8 5/3
O.128	90 39/6	0.24173	43	9 11/5	0.36916	57	9 7/1	O.188	90 36/0	0.21712	40	9 13/5	0.40512	61	9 6/0
			43	10 12/7	0.36973	57	10 7/9				39	10 15/0	0.40573	61	10 6/7
O.129		0.24130	43	20 25/5	0.37030	58	20 15/7	O.189		0.21673	39	20 30/0	0.40634	61	20 13/3
O.130		0.24088	42	30 38/2	0.37088	57	30 23/6	O.190		0.21634	39	30 45/0	0.40695	61	30 20/0
O.131		0.24045	43	40 50/9	0.37145	58	40 31/4	O.191		0.21595	39		0.40756	61	40 33/3
O.132	43	0.24003	42	43	0.37203	57	50 39/3				39			61	
O.133	10 4/3	0.23960	43	1 1/3	0.37260	57	1 0/8	O.192	39	0.21556	40	39	0.40816	61	1 0/6
O.134	20 8/6	0.23918	42	2 2/7	0.37318	58	2 1/5	O.193	10 3/9	0.21516	39	1 1/6	0.40877	61	2 1/3
O.135	30 12/9	0.23875	43	3 4/0	0.37375	57	3 2/3	O.194	20 7/8	0.21477	39	2 3/1	0.40938	61	3 1/9
O.136	40 17/2	0.23833	42	4 5/3	0.37433	58	4 3/0	O.195	30 11/7	0.21438	39	3 4/7	0.40999	62	4 2/6
O.137	50 21/5	0.23791	42	5 6/6	0.37491	58	5 3/8	O.196	40 15/6	0.21399	38	4 6/3	0.41061	61	5 3/2
O.138	60 25/8	0.23749	42	6 8/0	0.37549	58	6 4/5	O.197	50 19/5	0.21361	39	5 7/8	0.41122	61	6 3/8
O.139	70 30/1	0.23707	42	7 9/3	0.37607	58	7 5/3	O.198	60 23/4	0.21322	39	6 9/4	0.41183	61	7 4/5
O.140	80 34/4	0.23665	42	8 10/6	0.37665	58	8 6/0	O.199	70 27/3	0.21283	39	7 10/9	0.41244	61	8 5/1
O.141	90 38/7	0.23623	42	9 11/9	0.37723	58	9 6/8	O.200	80 31/2	0.21244	38	8 12/5	0.41306	61	9 5/8
O.142		0.23581	42	10 13/3	0.37781	58	10 7/5		90 35/1	0.21206	39	9 14/1	0.41367	61	10 6/4
O.143		0.23539	42	20 26/5	0.37839	58	20 15/1	O.201		0.21167	39	10 15/6	0.41428	61	20 12/8
O.144	42	0.23497	42	30 39/8	0.37897	58	30 22/6	O.202		0.21128	39	20 31/3	0.41490	62	30 19/2
O.145	10 4/2	0.23455	41	40 53/0	0.37955	59	40 30/2	O.203		0.21090	38	30 46/9	0.41552	62	40 25/6
O.146	20 8/4	0.23414	42	1 1/4	0.38014	58	50 37/7	O.204	38	0.21052	38		0.41613	62	50 32/0
O.147	30 12/6	0.23372	42	2 2/8	0.38072	58		O.205	10 3/8	0.21013	39	1 1/6	0.41675	62	60 38/4
O.148	40 16/8	0.23330	41	3 4/1	0.38130	59	1 0/7	O.206	20 7/6	0.20975	38	2 3/3	0.41737	62	1 0/6
O.149	50 21/0	0.23289	42	3 4/1	0.38189	58	2 1/4	O.207	30 11/4	0.20937	38	3 4/9	0.41798	62	2 1/2
O.150	60 25/2	0.23247	41	4 5/5	0.38247	59	3 2/2	O.208	40 15/2	0.20898	38	4 6/5	0.41860	62	3 1/8
O.151	70 29/4	0.23206	41	5 6/9	0.38306	59	4 2/9	O.209	50 19/0	0.20860	38	5 8/2	0.41922	62	4 2/5
O.152	80 33/6	0.23165	42	6 8/3	0.38365	59	5 3/6	O.210	60 22/8	0.20822	38	6 9/8	0.41984	62	5 3/1
O.153	90 37/8	0.23123	41	7 9/7	0.38423	59	6 4/3		70 26/6	0.20784	38	7 11/4	0.42046	62	6 4/3
O.154		0.23082	41	8 11/0	0.38482	59	7 5/1	O.211	80 30/4	0.20746	38	8 13/1	0.42108	62	7 4/9
O.155		0.23041	41	9 12/4	0.38541	59	8 5/8	O.212	90 34/2	0.20708	38	9 14/7	0.42170	62	8 4/9
O.156	41	0.23000	41	10 13/8	0.38600	59	9 6/5	O.213		0.20670	38	10 16/3	0.42232	62	9 5/5
O.157	10 4/1	0.22959	41	20 27/6	0.38659	59	10 7/2	O.214			38	20 32/6	0.42294	62	10 6/1
O.158	20 8/2	0.22918	41	30 41/4	0.38718	59	20 14/5	O.215			38	30 48/9	0.42357	62	20 12/3
O.159	30 12/3	0.22877	41	40 55/3	0.38777	59	30 21/7	O.216	37	0.20632	38	40 63/2	0.42419	62	30 18/4
O.160	40 16/4	0.22836	41	1 1/4	0.38836	59	40 29/0	O.217	10 3/7	0.20594	37	1 1/7	0.42481	62	40 24/5
O.161	50 20/5	0.22795	41	2 2/9	0.38895	59	50 36/2	O.218	20 7/4	0.20557	37	2 3/4	0.42544	62	50 30/6
O.162	60 24/6	0.22754	41	3 4/3	0.38954	59		O.219	30 11/1	0.20519	38	3 5/1	0.42606	62	60 36/8
O.163	70 28/7	0.22713	40	4 5/8	0.39013	60	1 0/7	O.220	40 14/8	0.20481	37	4 6/8	0.42669	62	1 0/6
O.164	80 32/8	0.22673	41	5 7/2	0.39073	60	2 1/4	O.221	50 18/5	0.20444	38	5 8/5	0.42731	62	2 1/2
O.165	90 36/9	0.22632	41	6 8/6	0.39132	59	3 2/8	O.222	60 22/2	0.20406	37	4 6/5	0.42794	62	3 2/9
O.166		0.22591	40	7 10/1	0.39191	60	4 2/2	O.223	70 25/9	0.20369	38	5 10/2	0.42857	62	5 3/5
O.167		0.22551	41	8 11/5	0.39251	59	5 4/9	O.224	80 29/6	0.20331	37	6 11/9	0.42920	62	6 4/1
O.168	40	0.22510	40	9 13/0	0.39310	60	6 5/6		90 33/3	0.20294	37	7 13/6	0.42982	62	7 4/7
O.169	10 4/0	0.22470	40	10 14/4	0.39370	60	7 6/3	O.225		0.20257	37	8 15/3	0.43045	62	8 5/3
O.170	20 8/0	0.22430	41	10 14/4	0.39430	60	8 6/9	O.226		0.20220	38	9 17/0	0.43108	62	9 5/9
O.171	30 12/0	0.22389	40	20 28/8	0.39489	60	10 13/9	O.227			37	10 17/0	0.43171	62	10 5/9
O.172	40 16/0	0.22349	40	30 43/2	0.39549	60	20 20/8	O.228	36	0.20182	37	20 34/1	0.43234	62	20 11/7
O.173	50 20/0	0.22309	40	40 57/6	0.39609	60	30 27/8	O.229	10 3/6	0.20145	37	30 51/1	0.43297	62	30 17/6
O.174	60 24/0	0.22269	40	1 1/5	0.39669	60	40 34/7	O.230	20 7/2	0.20108	37	1 1/8	0.43360	62	40 23/5
O.175	70 28/0	0.22229	40	2 3/0	0.39729	60	50 41/7	O.231	30 10/8	0.20071	37	2 3/6	0.43423	62	50 29/4
O.176	80 32/0	0.22189	40	3 4/5	0.39789	60		O.232	40 14/4	0.20034	37	3 5/3	0.43487	62	60 35/2
O.177	90 36/0	0.22149	40	4 6/0	0.39849	60	1 0/7	O.233	50 18/0	0.19997	37	3 7/1	0.43550	62	1 0/6
O.178		0.22109	40	5 7/5	0.39909	60	2 1/3	O.234	60 21/6	0.19960	37	4 7/1	0.43613	62	2 1/2
O.179		0.22069	40	6 9/0	0.39969	60	3 2/7	O.235	70 25/2	0.19923	36	4 7/1	0.43677	62	3 2/8
O.180		0.22029	40	7 10/5	0.40029	60	4 4/0	O.236	80 28/8	0.19887	37	5 8/9	0.43740	62	5 2/8
			40	8 12/0		60	5 3/3		90 32/4	0.19850	37	6 10/7		63	6 3/4
			40	9 13/5		60	6 4/7	O.237		0.19813	36	7 12/4		64	7 3/9
			40	10 15/0		60	7 5/3	O.238		0.19777	37	8 14/2			8 4/5
			40	20 30/0		60	8 6/0	O.239		0.19740	37	9 16/0			9 5/1
			40	30 45/0		60	9 6/7				37	10 17/8			10 5/6
			40	40 50/9		60	10 7/3				37	20 35/6			20 11/2
			40			60	20 20/0				37	30 53/3			30 16/9
			40			60	30 26/7				37				40 22/5
			40			60	40 33/3				37				50 28/1
			40			60					37				60 33/7
A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.

A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.
0.240	37	0.19740	36	37	0.43740	64	63	0.300	33	0.17643	33	33	0.47643	67	67
0.241	10 3,7	0.19704	36	1 1,7	0.43804	64	1 0,6	0.301	10 3,3	0.17610	33	1 2,0	0.47710	67	1 0,5
0.242	20 7,4	0.19667	37	2 3,4	0.43867	63	2 1,2	0.302	20 6,6	0.17577	33	2 4,1	0.47777	67	2 1,0
0.243	30 11,1	0.19631	36	3 5,1	0.43931	64	3 1,8	0.303	30 9,9	0.17544	33	3 6,1	0.47844	66	3 1,5
0.244	40 14,8	0.19595	36	4 6,8	0.43995	64	4 2,3	0.304	40 13,2	0.17510	34	4 8,1	0.47910	66	4 2,0
0.245	50 18,5	0.19558	37	5 8,5	0.44058	63	5 2,9	0.305	50 16,5	0.17477	33	5 10,2	0.47977	67	5 2,5
0.246	60 22,2	0.19522	36	6 10,2	0.44122	64	6 3,5	0.306	60 19,8	0.17444	33	6 12,2	0.48044	67	6 3,0
0.247	70 25,9	0.19486	36	7 11,9	0.44186	64	7 4,1	0.307	70 23,1	0.17411	33	7 14,2	0.48111	67	7 3,4
0.248	80 29,6	0.19450	36	8 13,6	0.44250	64	8 4,7	0.308	80 26,4	0.17378	33	8 16,2	0.48178	67	8 3,9
0.249	90 33,3	0.19414	36	9 15,3	0.44314	64	9 5,3	0.309	90 29,7	0.17345	33	9 18,3	0.48245	67	9 4,4
0.250		0.19378	36	10 17,0	0.44378	64	10 5,9	0.310		0.17312	33	10 20,3	0.48312	67	10 4,9
0.251		0.19342	36	20 34,1	0.44442	64	20 11,7	0.311		0.17279	33	20 40,6	0.48379	68	20 9,9
0.252		0.19306	36	30 51,1	0.44506	64	30 17,6	0.312		0.17247	32	30 60,9	0.48447	67	30 14,8
0.253		0.19270	36		0.44570	64	40 23,5	0.313		0.17214	33		0.48514	67	40 19,7
0.254		0.19234	36		0.44634	64	50 29,4	0.314		0.17181	33		0.48581	67	50 24,6
0.255	36	0.19198	35		0.44698	65	60 35,2	0.315	32	0.17148	32		0.48648	68	60 29,6
0.256	10 3,6	0.19163	35	1 1,8	0.44763	64		0.316	10 3,2	0.17116	33	1 2,1	0.48716	67	1 0,5
0.257	20 7,2	0.19127	36	2 3,6	0.44827	64	1 0,6	0.317	20 6,4	0.17083	32	2 4,2	0.48783	68	2 0,9
0.258	30 10,8	0.19091	36	3 5,3	0.44891	64	2 1,7	0.318	30 9,6	0.17051	32	3 6,4	0.48851	67	3 1,4
0.259	40 14,4	0.19056	35	4 7,1	0.44956	65	4 2,2	0.319	40 12,8	0.17018	33	4 8,5	0.48918	68	4 1,9
0.260	50 18,0	0.19020	36	5 8,9	0.45020	64	5 2,8	0.320	50 16,0	0.16986	32	5 10,6	0.48986	68	5 2,4
0.261	60 21,6	0.18985	35	6 10,7	0.45085	64	6 3,4	0.321	60 19,2	0.16954	32	6 12,7	0.49054	67	6 2,8
0.262	70 25,2	0.18949	35	7 12,4	0.45149	65	7 3,9	0.322	70 22,4	0.16921	32	7 14,9	0.49121	68	7 3,3
0.263	80 28,8	0.18914	35	8 14,2	0.45214	65	8 4,5	0.323	80 25,6	0.16889	32	8 17,0	0.49189	68	8 3,8
0.264	90 32,4	0.18879	35	9 16,0	0.45279	65	9 5,1	0.324	90 28,8	0.16857	32	9 19,1	0.49257	68	9 4,2
0.265		0.18844	35	10 17,8	0.45344	64	10 5,6	0.325		0.16825	32	10 21,2	0.49325	68	10 4,7
0.266		0.18808	36	20 35,6	0.45408	65	20 11,2	0.326		0.16793	32	20 42,5	0.49393	68	20 9,4
0.267		0.18773	35	30 53,3	0.45473	65	30 16,9	0.327		0.16761	32	30 63,7	0.49461	68	30 14,1
0.268		0.18738	35		0.45538	65	40 22,5	0.328		0.16729	32		0.49529	68	40 18,8
0.269		0.18703	35		0.45603	65	50 28,1	0.329		0.16697	32		0.49597	68	50 23,5
0.270	35	0.18668	35		0.45668	65	60 33,7	0.330	31	0.16665	32		0.49665	68	60 28,2
0.271	10 3,5	0.18633	35	1 1,9	0.45733	66		0.331	10 3,1	0.16633	32	1 2,2	0.49733	68	1 0,4
0.272	20 7,0	0.18599	34	2 3,7	0.45799	65	1 0,5	0.332	20 6,2	0.16601	32	2 4,5	0.49801	68	2 0,9
0.273	30 10,5	0.18564	35	3 5,6	0.45864	65	2 1,6	0.333	30 9,3	0.16569	32	3 6,7	0.49869	69	3 1,3
0.274	40 14,0	0.18529	35	4 7,4	0.45929	65	4 2,2	0.334	40 12,4	0.16538	31	4 8,9	0.49938	68	4 1,8
0.275	50 17,5	0.18494	35	5 9,3	0.45994	65	5 2,7	0.335	50 15,5	0.16506	32	5 11,1	0.50006	68	5 2,2
0.276	60 21,0	0.18460	34	6 11,1	0.46060	66	6 3,2	0.336	60 18,6	0.16474	31	6 13,4	0.50074	69	6 2,7
0.277	70 24,5	0.18425	35	7 13,0	0.46125	65	7 3,8	0.337	70 21,7	0.16443	32	7 15,6	0.50143	68	7 3,1
0.278	80 28,0	0.18390	34	8 14,9	0.46190	66	8 4,3	0.338	80 24,8	0.16411	31	8 17,8	0.50211	69	8 3,6
0.279	90 31,5	0.18356	34	9 16,7	0.46256	66	9 4,8	0.339	90 27,9	0.16380	31	9 20,0	0.50280	69	9 4,0
0.280		0.18322	35	10 18,6	0.46322	65	10 5,4	0.340		0.16349	32	10 22,3	0.50349	68	10 4,5
0.281		0.18287	35	20 37,1	0.46387	66	20 10,8	0.341		0.16317	31	20 44,5	0.50417	69	20 9,0
0.282		0.18253	34	30 55,7	0.46453	66	30 16,2	0.342		0.16286	31	30 66,8	0.50486	69	30 13,5
0.283		0.18218	35		0.46518	65	40 21,5	0.343		0.16255	31		0.50555	69	40 18,0
0.284		0.18184	34		0.46584	66	50 26,9	0.344		0.16224	31		0.50624	68	50 22,5
0.285	34	0.18150	34		0.46650	66	60 32,3	0.345	30	0.16192	32		0.50692	69	60 27,0
0.286	10 3,4	0.18116	34	1 1,9	0.46716	66		0.346	10 3,0	0.16161	31	1 2,3	0.50761	69	1 0,4
0.287	20 6,8	0.18082	34	2 3,9	0.46782	66	1 0,5	0.347	20 6,0	0.16130	31	2 4,7	0.50830	69	2 0,9
0.288	30 10,2	0.18048	34	3 5,8	0.46848	66	2 1,5	0.348	30 9,0	0.16099	31	3 7,0	0.50899	69	3 1,3
0.289	40 13,6	0.18014	34	4 7,8	0.46914	66	4 2,1	0.349	40 12,0	0.16068	31	4 9,3	0.50968	69	4 1,7
0.290	50 17,0	0.17980	34	5 9,7	0.46980	66	5 2,6	0.350	50 15,0	0.16037	31	5 11,7	0.51037	70	5 2,1
0.291	60 20,4	0.17946	34	6 11,6	0.47046	66	6 3,1	0.351	60 18,0	0.16007	30	6 14,0	0.51107	69	6 2,6
0.292	70 23,8	0.17912	34	7 13,6	0.47112	66	7 3,6	0.352	70 21,0	0.15976	31	7 16,3	0.51176	69	7 3,0
0.293	80 27,2	0.17878	33	8 15,5	0.47178	67	8 4,1	0.353	80 24,0	0.15945	31	8 18,7	0.51245	69	8 3,4
0.294	90 30,6	0.17845	34	9 17,5	0.47245	66	9 4,6	0.354	90 27,0	0.15914	30	9 21,0	0.51314	70	9 3,9
0.295		0.17811	34	10 19,4	0.47311	66	10 5,1	0.355		0.15884	31	10 23,3	0.51384	69	10 4,3
0.296		0.17777	34	20 38,8	0.47377	67	20 10,3	0.356		0.15853	31	20 46,7	0.51453	69	20 8,6
0.297		0.17744	33	30 58,2	0.47444	66	30 15,5	0.357		0.15822	31		0.51522	70	30 12,9
0.298		0.17710	34		0.47510	66	40 20,6	0.358		0.15792	30		0.51592	69	40 17,1
0.299		0.17677	33		0.47577	67	50 25,8	0.359		0.15761	31		0.51661	70	50 21,4
0.300		0.17643	34		0.47643	66	60 30,9	0.360		0.15731	30		0.51731	70	60 25,7
A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.

A.	P. P.	B.	d.	P. P.	C.	d.	P. P.	A.	P. P.	B.	d.	P. P.	C.	d.	P. P.
0.360	31	0.15731	30	1 2,2	0.51731	70	1 0,4	0.420	28	0.13994	28	1 2,6	0.55994	72	1 0,4
0.361	10 3,1	0.15701	31	2 4,5	0.51801	69	2 0,9	0.421	10 2,8	0.13966	27	2 5,1	0.56066	73	2 0,8
0.362	20 6,2	0.15670	30	3 6,7	0.51870	70	3 1,3	0.422	20 5,6	0.13939	28	3 7,7	0.56139	72	3 1,2
0.363	30 9,3	0.15640	30	4 8,9	0.51940	70	4 1,8	0.423	30 8,4	0.13911	27	4 10,3	0.56211	73	4 1,6
0.364	40 12,4	0.15610	30	5 11,1	0.52010	70	5 2,2	0.424	40 11,2	0.13884	27	5 12,9	0.56284	73	5 1,9
0.365	50 15,5	0.15580	30	6 13,4	0.52080	70	6 2,7	0.425	50 14,0	0.13857	28	6 15,4	0.56357	72	6 2,3
0.366	60 18,6	0.15550	30	7 15,6	0.52150	70	7 3,1	0.426	60 16,8	0.13829	27	7 18,0	0.56429	73	7 2,7
0.367	70 21,7	0.15520	30	8 17,8	0.52220	69	8 3,6	0.427	70 19,6	0.13802	27	8 20,6	0.56502	73	8 3,1
0.368	80 24,8	0.15489	29	9 20,0	0.52289	71	9 4,0	0.428	80 22,4	0.13775	27	9 23,1	0.56575	73	9 3,5
0.369	90 27,9	0.15460	30	10 22,3	0.52360	70	10 4,5	0.429	90 25,2	0.13748	27	10 25,7	0.56648	73	10 3,9
0.370		0.15430	30	20 44,5	0.52430	70	20 9,0	0.430		0.13721	27	20 51,4	0.56721	73	20 7,8
0.371		0.15400	30	30 66,8	0.52500	70	30 13,5	0.431		0.13694	27		0.56794	73	30 11,7
0.372		0.15370	30		0.52570	70	40 18,0	0.432		0.13667	27		0.56867	73	40 15,6
0.373		0.15340	30		0.52640	70	50 22,5	0.433		0.13640	27		0.56940	73	50 19,4
0.374		0.15310	29		0.52710	71	60 27,0	0.434		0.13613	27		0.57013	73	60 23,3
0.375	30	0.15281	30	1 2,3	0.52781	70	1 0,4	0.435	27	0.13586	27	27	0.57086	73	70 27,2
0.376	10 3,0	0.15251	30	2 4,7	0.52851	70	2 0,9	0.436	10 2,7	0.13559	27	1 2,7	0.57159	73	1 0,4
0.377	20 6,0	0.15221	29	3 7,0	0.52921	71	3 1,3	0.437	20 5,4	0.13532	27	2 5,4	0.57232	73	2 0,7
0.378	30 9,0	0.15192	30	4 9,3	0.52992	70	4 1,7	0.438	30 8,1	0.13505	26	3 8,1	0.57305	74	3 1,1
0.379	40 12,0	0.15162	29	5 11,7	0.53062	71	5 2,1	0.439	40 10,8	0.13479	27	4 10,8	0.57379	73	4 1,5
0.380	50 15,0	0.15133	29	6 14,0	0.53133	71	6 2,6	0.440	50 13,5	0.13452	27	5 13,5	0.57452	73	5 1,8
0.381	60 18,0	0.15104	29	7 16,3	0.53204	70	7 3,0	0.441	60 16,2	0.13425	26	6 16,2	0.57525	74	6 2,2
0.382	70 21,0	0.15074	30	8 18,7	0.53274	71	8 3,4	0.442	70 18,9	0.13399	27	7 18,9	0.57599	73	7 2,6
0.383	80 24,0	0.15045	29	9 21,0	0.53345	71	9 3,9	0.443	80 21,6	0.13372	26	8 21,6	0.57672	74	8 3,0
0.384	90 27,0	0.15016	30	10 23,3	0.53416	70	10 4,3	0.444	90 24,3	0.13346	27	9 24,3	0.57746	73	9 3,3
0.385		0.14986	29	20 46,7	0.53486	71	20 8,6	0.445		0.13319	26	10 27,0	0.57819	74	10 3,7
0.386		0.14957	29		0.53557	71	30 12,9	0.446		0.13293	26	20 54,1	0.57893	74	20 7,4
0.387		0.14928	29		0.53628	71	40 17,1	0.447		0.13267	27		0.57967	73	30 11,1
0.388		0.14899	29		0.53699	71	50 21,4	0.448		0.13240	26		0.58040	74	40 14,8
0.389		0.14870	29		0.53770	71	60 25,7	0.449		0.13214	26		0.58114	74	50 18,5
0.390	29	0.14841	29	1 2,4	0.53841	71	1 0,4	0.450	26	0.13188	26	26	0.58188	74	60 22,2
0.391	10 2,9	0.14812	29	2 4,9	0.53912	71	2 0,8	0.451	10 2,6	0.13162	26	1 2,8	0.58262	74	70 25,9
0.392	20 5,8	0.14783	28	3 7,3	0.53983	72	3 1,2	0.452	20 5,2	0.13136	26	2 5,7	0.58336	74	1 0,4
0.393	30 8,7	0.14755	29	4 9,8	0.54055	71	4 1,6	0.453	30 7,8	0.13110	26	3 8,5	0.58410	74	2 0,7
0.394	40 11,6	0.14726	29	5 12,2	0.54126	71	5 2,0	0.454	40 10,4	0.13084	26	4 11,4	0.58484	74	3 1,1
0.395	50 14,5	0.14697	29	6 14,7	0.54197	71	6 2,5	0.455	50 13,0	0.13058	26	5 14,2	0.58558	74	4 1,4
0.396	60 17,4	0.14668	28	7 17,1	0.54268	72	7 2,9	0.456	60 15,6	0.13032	26	6 17,1	0.58632	74	5 1,8
0.397	70 20,3	0.14640	29	8 19,6	0.54340	71	8 3,3	0.457	70 18,2	0.13006	26	7 19,9	0.58706	74	6 2,1
0.398	80 23,2	0.14611	28	9 22,0	0.54411	72	9 3,7	0.458	80 20,8	0.12980	26	8 22,8	0.58780	74	7 2,5
0.399	90 26,1	0.14583	29	10 24,5	0.54483	71	10 4,1	0.459	90 23,4	0.12954	26	9 25,6	0.58854	74	8 2,8
0.400		0.14554	28	20 49,0	0.54554	72	20 8,2	0.460		0.12928	25	10 28,5	0.58928	75	9 3,2
0.401		0.14526	29		0.54626	71	30 12,3	0.461		0.12903	26	20 56,9	0.59003	74	10 3,5
0.402		0.14497	28		0.54697	72	40 16,3	0.462		0.12877	26		0.59077	74	20 7,0
0.403		0.14469	28		0.54769	72	50 20,4	0.463		0.12851	25		0.59151	75	30 10,5
0.404		0.14441	29		0.54841	71	60 24,5	0.464		0.12826	26		0.59226	74	40 14,1
0.405	28	0.14412	28	1 2,6	0.54912	72	70 28,6	0.465	25	0.12800	25	25	0.59300	75	50 17,6
0.406	10 2,8	0.14384	28	2 5,1	0.54984	72	1 0,4	0.466	10 2,5	0.12775	26	1 3,0	0.59375	74	60 21,1
0.407	20 5,6	0.14356	28	3 7,7	0.55056	72	2 0,8	0.467	20 5,0	0.12749	25	2 6,0	0.59449	75	70 24,6
0.408	30 8,4	0.14328	28	4 10,3	0.55128	72	3 1,2	0.468	30 7,5	0.12724	26	3 9,0	0.59524	74	1 0,3
0.409	40 11,2	0.14300	28	5 12,9	0.55200	72	4 1,6	0.469	40 10,0	0.12698	25	4 12,0	0.59598	75	2 0,7
0.410	50 14,0	0.14272	28	6 15,4	0.55272	72	5 1,9	0.470	50 12,5	0.12673	25	5 15,0	0.59673	75	3 1,0
0.411	60 16,8	0.14244	28	7 18,0	0.55344	72	6 2,3	0.471	60 15,0	0.12648	26	6 18,0	0.59748	74	4 1,3
0.412	70 19,6	0.14216	28	8 20,6	0.55416	72	7 2,7	0.472	70 17,5	0.12622	25	7 21,0	0.59822	75	5 1,7
0.413	80 22,4	0.14188	28	9 23,1	0.55488	72	8 3,1	0.473	80 20,0	0.12597	25	8 24,0	0.59897	75	6 2,0
0.414	90 25,2	0.14160	28	10 25,7	0.55560	72	9 3,5	0.474	90 22,5	0.12572	25	9 27,0	0.59972	75	7 2,3
0.415		0.14132	28	20 51,4	0.55632	72	10 3,9	0.475		0.12547	25	10 30,0	0.60047	75	8 2,7
0.416		0.14104	27		0.55704	73	20 7,8	0.476		0.12522	25	20 60,0	0.60122	75	9 3,0
0.417		0.14077	28		0.55777	72	30 11,7	0.477		0.12497	25		0.60197	75	10 3,3
0.418		0.14049	28		0.55849	72	40 15,6	0.478		0.12472	25		0.60272	75	20 6,7
0.419		0.14021	27		0.55921	73	50 19,4	0.479		0.12447	25		0.60347	75	30 10,0
0.420		0.13994			0.55994		60 23,3	0.480		0.12422	25		0.60422	75	40 13,3
							70 27,2								
A.	P. P.	B.	d.	P. P.	C.	d.	P. P.	A.	P. P.	B.	d.	P. P.	C.	d.	P. P.

A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.
0.480	25	0.12422	25	1	0.60422	75	1	0.540	22	0.11005	22	1	0.65005	78	1
0.481	3	0.12397	25	1	0.60497	75	2	0.541	3	0.10983	22	1	0.65083	78	2
0.482	7	0.12372	25	2	0.60572	75	5	0.542	7	0.10960	23	2	0.65160	77	5
0.483	11	0.12348	24	3	0.60648	76	8	0.543	11	0.10938	22	3	0.65238	78	8
0.484	15	0.12323	25	4	0.60723	75	11	0.544	15	0.10916	22	4	0.65316	78	11
0.485	19	0.12298	25	5	0.60798	75	14	0.545	19	0.10894	22	5	0.65394	78	14
0.486	23	0.12274	24	6	0.60874	76	17	0.546	23	0.10872	22	6	0.65472	77	17
0.487	27	0.12249	25	7	0.60949	75	20	0.547	27	0.10849	23	7	0.65549	78	20
0.488	31	0.12224	25	8	0.61024	75	23	0.548	31	0.10827	22	8	0.65627	78	23
0.489	35	0.12200	24	9	0.61100	76	26	0.549	35	0.10805	22	9	0.65705	78	26
0.490	39	0.12175	25	10	0.61175	75	29	0.550	39	0.10783	22	10	0.65783	78	29
0.491	43	0.12151	24	11	0.61251	76	32	0.551	43	0.10761	22	11	0.65861	78	32
0.492	47	0.12127	25	12	0.61327	75	35	0.552	47	0.10739	21	12	0.65939	79	35
0.493	51	0.12102	24	13	0.61402	76	38	0.553	51	0.10718	22	13	0.66018	78	38
0.494	55	0.12078	24	14	0.61478	76	41	0.554	55	0.10696	22	14	0.66096	78	41
0.495	59	0.12054	24	15	0.61554	76	44	0.555	59	0.10674	22	15	0.66174	78	44
0.496	63	0.12030	25	16	0.61630	75	47	0.556	63	0.10652	22	16	0.66252	78	47
0.497	67	0.12005	24	17	0.61705	76	50	0.557	67	0.10630	21	17	0.66330	79	50
0.498	71	0.11981	24	18	0.61781	76	53	0.558	71	0.10609	22	18	0.66409	78	53
0.499	75	0.11957	24	19	0.61857	76	56	0.559	75	0.10587	22	19	0.66487	78	56
0.500	79	0.11933	24	20	0.61933	76	59	0.560	79	0.10565	21	20	0.66565	79	59
0.501	83	0.11909	24	21	0.62009	76	62	0.561	83	0.10544	22	21	0.66644	78	62
0.502	87	0.11885	24	22	0.62085	76	65	0.562	87	0.10522	21	22	0.66722	79	65
0.503	91	0.11861	24	23	0.62161	76	68	0.563	91	0.10501	22	23	0.66801	78	68
0.504	95	0.11837	23	24	0.62237	77	71	0.564	95	0.10479	21	24	0.66879	79	71
0.505	99	0.11814	24	25	0.62314	76	74	0.565	99	0.10458	21	25	0.66958	79	74
0.506	103	0.11790	24	26	0.62390	76	77	0.566	103	0.10437	22	26	0.67037	78	77
0.507	107	0.11766	24	27	0.62466	76	80	0.567	107	0.10415	21	27	0.67115	79	80
0.508	111	0.11742	23	28	0.62542	77	83	0.568	111	0.10394	21	28	0.67194	79	83
0.509	115	0.11719	24	29	0.62619	76	86	0.569	115	0.10373	22	29	0.67273	78	86
0.510	119	0.11695	24	30	0.62695	76	89	0.570	119	0.10351	21	30	0.67351	79	89
0.511	123	0.11671	23	31	0.62771	77	92	0.571	123	0.10330	21	31	0.67430	79	92
0.512	127	0.11648	24	32	0.62848	76	95	0.572	127	0.10309	21	32	0.67509	79	95
0.513	131	0.11624	23	33	0.62924	77	98	0.573	131	0.10288	21	33	0.67588	79	98
0.514	135	0.11601	24	34	0.63001	76	101	0.574	135	0.10267	21	34	0.67667	79	101
0.515	139	0.11577	23	35	0.63077	77	104	0.575	139	0.10246	21	35	0.67746	79	104
0.516	143	0.11554	23	36	0.63154	77	107	0.576	143	0.10225	21	36	0.67825	79	107
0.517	147	0.11531	24	37	0.63231	76	110	0.577	147	0.10204	21	37	0.67904	79	110
0.518	151	0.11507	23	38	0.63307	77	113	0.578	151	0.10183	21	38	0.67983	79	113
0.519	155	0.11484	23	39	0.63384	77	116	0.579	155	0.10162	21	39	0.68062	79	116
0.520	159	0.11461	23	40	0.63461	77	119	0.580	159	0.10141	21	40	0.68141	79	119
0.521	163	0.11438	23	41	0.63538	77	122	0.581	163	0.10120	20	41	0.68220	80	122
0.522	167	0.11415	23	42	0.63615	77	125	0.582	167	0.10100	21	42	0.68300	79	125
0.523	171	0.11392	24	43	0.63692	76	128	0.583	171	0.10079	21	43	0.68379	79	128
0.524	175	0.11368	24	44	0.63768	76	131	0.584	175	0.10058	20	44	0.68458	80	131
0.525	179	0.11345	23	45	0.63845	78	134	0.585	179	0.10038	21	45	0.68538	79	134
0.526	183	0.11323	23	46	0.63923	77	137	0.586	183	0.10017	21	46	0.68617	79	137
0.527	187	0.11300	23	47	0.64000	77	140	0.587	187	0.09996	20	47	0.68696	80	140
0.528	191	0.11277	23	48	0.64077	77	143	0.588	191	0.09976	21	48	0.68776	79	143
0.529	195	0.11254	23	49	0.64154	77	146	0.589	195	0.09955	20	49	0.68855	80	146
0.530	199	0.11231	23	50	0.64231	77	149	0.590	199	0.09935	21	50	0.68935	79	149
0.531	203	0.11208	22	51	0.64308	78	152	0.591	203	0.09914	20	51	0.69014	80	152
0.532	207	0.11186	23	52	0.64386	77	155	0.592	207	0.09894	20	52	0.69094	80	155
0.533	211	0.11163	23	53	0.64463	77	158	0.593	211	0.09874	20	53	0.69174	80	158
0.534	215	0.11140	22	54	0.64540	78	161	0.594	215	0.09853	20	54	0.69253	80	161
0.535	219	0.11118	23	55	0.64618	77	164	0.595	219	0.09833	20	55	0.69333	80	164
0.536	223	0.11095	22	56	0.64695	78	167	0.596	223	0.09813	20	56	0.69413	80	167
0.537	227	0.11073	23	57	0.64773	77	170	0.597	227	0.09793	20	57	0.69493	80	170
0.538	231	0.11050	22	58	0.64850	78	173	0.598	231	0.09773	21	58	0.69573	79	173
0.539	235	0.11028	23	59	0.64928	77	176	0.599	235	0.09752	20	59	0.69652	80	176
0.540	239	0.11005	22	60	0.65005	77	179	0.600	239	0.09732	20	60	0.69732	80	179
A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.

A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.
0.600	20	0.09732	20	20	0.69732	80	80	0.660	18	0.08592	18	18	0.74592	82	82
0.601	31	0.09712	20	14	0.69812	80	31	0.661	31	0.08574	17	15	0.74674	83	31
0.602	82	0.09692	20	28	0.69892	80	72	0.662	92	0.08557	18	29	0.74757	82	72
0.603	133	0.09672	20	312	0.69972	80	113	0.663	143	0.08539	18	314	0.74839	82	123
0.604	184	0.09652	20	416	0.70052	80	154	0.664	204	0.08521	18	418	0.74921	82	164
0.605	235	0.09632	20	520	0.70132	80	195	0.665	265	0.08503	18	523	0.75003	82	215
0.606	286	0.09612	19	624	0.70212	81	236	0.666	316	0.08485	17	627	0.75085	83	266
0.607	337	0.09593	20	728	0.70293	80	277	0.667	377	0.08468	18	732	0.75168	82	307
0.608	388	0.09573	20	832	0.70373	80	318	0.668	438	0.08450	18	836	0.75250	82	358
0.609	439	0.09553	20	936	0.70453	80	359	0.669	489	0.08432	17	941	0.75332	83	399
0.610	490	0.09533	19	1040	0.70533	81	3910	0.670	5310	0.08415	18	1046	0.75415	82	4410
0.611	541	0.09514	20	1144	0.70614	80	4311	0.671	5911	0.08397	18	1150	0.75497	82	4811
0.612	592	0.09494	20	1248	0.70694	80	4712	0.672	6412	0.08379	17	1255	0.75579	83	5212
0.613	643	0.09474	19	1352	0.70774	81	5113	0.673	7013	0.08362	18	1359	0.75662	82	5613
0.614	694	0.09455	20	1456	0.70855	80	5514	0.674	7614	0.08344	17	1464	0.75744	83	6014
0.615	745	0.09435	19	1560	0.70935	81	5915	0.675	8115	0.08327	18	1568	0.75827	82	6415
0.616	796	0.09416	20	1664	0.71016	80	6316	0.676	8716	0.08309	17	1673	0.75909	83	6816
0.617	847	0.09396	19	1768	0.71096	81	6717	0.677	9217	0.08292	17	1777	0.75992	82	7217
0.618	898	0.09377	20	1872	0.71177	80	7118	0.678	9818	0.08275	18	1882	0.76075	83	7618
0.619	949	0.09357	19	1976	0.71257	81	7519	0.679		0.08257	17		0.76157	82	8019
0.620		0.09338	19	2080	0.71338	81	7920	0.680		0.08240	17		0.76240	83	
0.621	19	0.09319	20		0.71419	80	81	0.681	17	0.08223	17	17	0.76323	83	83
0.622	31	0.09299	19	14	0.71499	81	31	0.682	31	0.08206	18	15	0.76406	82	31
0.623	82	0.09280	19	29	0.71580	81	72	0.683	92	0.08188	17	210	0.76488	83	72
0.624	133	0.09261	19	313	0.71661	81	113	0.684	153	0.08171	17	315	0.76571	83	113
0.625	184	0.09242	19	417	0.71742	81	154	0.685	214	0.08154	17	420	0.76654	83	154
0.626	235	0.09223	19	521	0.71823	81	205	0.686	275	0.08137	17	524	0.76737	83	205
0.627	286	0.09204	20	626	0.71904	80	246	0.687	336	0.08120	17	629	0.76820	83	246
0.628	337	0.09184	19	730	0.71984	81	287	0.688	397	0.08103	17	734	0.76903	83	287
0.629	388	0.09165	19	834	0.72065	81	328	0.689	458	0.08086	17	839	0.76986	83	328
0.630	439	0.09146	19	938	0.72146	81	379	0.690	519	0.08069	17	944	0.77069	83	379
0.631	490	0.09127	19	1043	0.72227	81	4110	0.691	5610	0.08052	17	1049	0.77152	83	4110
0.632	541	0.09108	18	1147	0.72308	82	4511	0.692	6211	0.08035	17	1154	0.77235	83	4511
0.633	592	0.09090	19	1251	0.72390	81	5012	0.693	6812	0.08018	17	1259	0.77318	83	5012
0.634	643	0.09071	19	1355	0.72471	81	5413	0.694	7413	0.08001	16	1363	0.77401	84	5413
0.635	694	0.09052	19	1460	0.72552	81	5814	0.695	8014	0.07985	17	1468	0.77485	83	5814
0.636	745	0.09033	19	1564	0.72633	81	6215	0.696	8615	0.07968	17	1573	0.77568	83	6215
0.637	796	0.09014	18	1668	0.72714	82	6716	0.697	9216	0.07951	17	1678	0.77651	83	6716
0.638	847	0.08996	19	1772	0.72796	81	7117	0.698	9817	0.07934	16	1783	0.77734	84	7117
0.639	898	0.08977	19	1877	0.72877	81	7518	0.699		0.07918	17		0.77818	83	7518
0.640		0.08958	18	1981	0.72958	82	7919	0.700		0.07901	17		0.77901	83	7919
0.641	18	0.08940	19		0.73040	81	82	0.701	16	0.07884	16	16	0.77984	84	82
0.642	31	0.08921	19	15	0.73121	81	31	0.702	41	0.07868	17	15	0.78068	83	31
0.643	82	0.08902	18	29	0.73202	82	72	0.703	102	0.07851	16	210	0.78151	84	72
0.644	133	0.08884	19	314	0.73284	81	113	0.704	163	0.07835	17	316	0.78235	83	113
0.645	184	0.08865	18	418	0.73365	82	154	0.705	224	0.07818	16	421	0.78318	84	154
0.646	235	0.08847	18	523	0.73447	82	195	0.706	285	0.07802	17	526	0.78402	83	195
0.647	286	0.08829	19	627	0.73529	81	236	0.707	346	0.07785	16	631	0.78485	84	236
0.648	337	0.08810	18	732	0.73610	82	277	0.708	407	0.07769	16	737	0.78569	84	277
0.649	388	0.08792	18	836	0.73692	82	318	0.709	468	0.07753	17	842	0.78653	83	318
0.650	439	0.08774	19	941	0.73774	81	359	0.710	529	0.07736	16	947	0.78736	84	359
0.651	490	0.08755	18	1046	0.73855	82	3910	0.711	5910	0.07720	16	1052	0.78820	84	3910
0.652	541	0.08737	18	1150	0.73937	82	4311	0.712	6511	0.07704	17	1158	0.78904	83	4311
0.653	592	0.08719	18	1255	0.74019	82	4712	0.713	7112	0.07687	16	1263	0.78987	84	4712
0.654	643	0.08701	18	1359	0.74101	82	5113	0.714	7713	0.07671	16	1368	0.79071	84	5113
0.655	694	0.08683	19	1464	0.74183	81	5514	0.715	8314	0.07655	16	1473	0.79155	84	5514
0.656	745	0.08664	18	1568	0.74264	82	5915	0.716	8915	0.07639	16	1578	0.79239	84	5915
0.657	796	0.08646	18	1673	0.74346	82	6316	0.717	9516	0.07623	16	1683	0.79323	84	6316
0.658	847	0.08628	18	1777	0.74428	82	6717	0.718		0.07607	16		0.79407	84	6717
0.659	898	0.08610	18	1882	0.74510	82	7118	0.719		0.07591	16		0.79491	84	7118
0.660		0.08592	18		0.74592	82		0.720		0.07575	16		0.79575	84	
A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.

A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.
0.720	1 6	0.07575	16	1 6	0.79575	84	8 4	0.780	1 4	0.06668	14	1 4	0.84668	86	8 6
0.721	4 1	0.07559	16	1 5	0.79659	84	3 1	0.781	4 1	0.06654	14	1 6	0.84754	86	4 1
0.722	10 2	0.07543	16	2 10	0.79743	84	8 2	0.782	11 2	0.06640	14	2 12	0.84840	86	10 2
0.723	16 3	0.07527	16	3 16	0.79827	84	14 3	0.783	18 3	0.06626	14	3 18	0.84926	86	16 3
0.724	22 4	0.07511	16	4 21	0.79911	84	19 4	0.784	26 4	0.06612	14	4 25	0.85012	86	22 4
0.725	29 5	0.07495	16	5 26	0.79995	84	24 5	0.785	33 5	0.06597	15	5 31	0.85097	85	28 5
0.726	35 6	0.07479	16	6 31	0.80079	84	29 6	0.786	40 6	0.06583	14	6 37	0.85183	86	34 6
0.727	41 7	0.07463	15	7 37	0.80163	84	35 7	0.787	47 7	0.06569	14	7 43	0.85269	86	40 7
0.728	47 8	0.07448	15	8 42	0.80248	85	40 8	0.788	54 8	0.06555	14	8 49	0.85355	86	47 8
0.729	54 9	0.07432	16	9 47	0.80332	84	45 9	0.789	61 9	0.06541	14	9 55	0.85441	86	53 9
0.730	60 10	0.07416	16	10 52	0.80416	84	50 10	0.790	68 10	0.06527	14	10 61	0.85527	86	59 10
0.731	66 11	0.07400	16	11 58	0.80500	84	56 11	0.791	76 11	0.06513	14	11 68	0.85613	86	65 11
0.732	72 12	0.07385	15	12 63	0.80585	85	61 12	0.792	83 12	0.06500	13	12 74	0.85700	87	71 12
0.733	79 13	0.07369	16	13 68	0.80669	84	66 13	0.793	90 13	0.06486	14	13 80	0.85786	86	77 13
0.734	85 14	0.07354	15	14 73	0.80754	85	71 14	0.794	97 14	0.06472	14	14 86	0.85872	86	83 14
0.735	91 15	0.07338	16	15 79	0.80838	84	77 15	0.795		0.06458	14		0.85958	86	
0.736	97 16	0.07322	15	16 84	0.80922	84	82 16	0.796		0.06444	14		0.86044	86	
0.737		0.07307	16		0.81007	84		0.797		0.06430	13		0.86130	87	
0.738		0.07291	15		0.81091	85		0.798		0.06417	14		0.86217	86	
0.739		0.07276	15		0.81176	85		0.799		0.06403	14		0.86303	86	
0.740		0.07261	16		0.81261	84		0.800		0.06389	13		0.86389	87	
0.741	1 5	0.07245	15	1 5	0.81345	85	8 5	0.801	1 3	0.06376	14	1 3	0.86476	86	8 7
0.742	4 1	0.07230	15	1 6	0.81430	85	3 1	0.802	4 1	0.06362	14	1 7	0.86562	86	4 1
0.743	11 2	0.07215	16	2 11	0.81515	84	9 2	0.803	12 2	0.06348	13	2 13	0.86648	87	11 2
0.744	17 3	0.07199	15	3 17	0.81599	85	15 3	0.804	20 3	0.06335	14	3 20	0.86735	86	17 3
0.745	24 4	0.07184	15	4 23	0.81684	85	20 4	0.805	27 4	0.06321	13	4 27	0.86821	87	24 4
0.746	31 5	0.07169	15	5 28	0.81769	85	26 5	0.806	35 5	0.06308	14	5 33	0.86908	86	31 5
0.747	37 6	0.07154	16	6 34	0.81854	84	32 6	0.807	43 6	0.06294	13	6 40	0.86994	87	37 6
0.748	44 7	0.07138	15	7 40	0.81938	85	37 7	0.808	51 7	0.06281	14	7 47	0.87081	86	44 7
0.749	51 8	0.07123	15	8 45	0.82023	85	43 8	0.809	58 8	0.06267	13	8 54	0.87167	87	51 8
0.750	57 9	0.07108	15	9 51	0.82108	85	49 9	0.810	66 9	0.06254	14	9 60	0.87254	86	57 9
0.751	64 10	0.07093	15	10 57	0.82193	85	54 10	0.811	74 10	0.06240	13	10 67	0.87340	87	64 10
0.752	71 11	0.07078	15	11 62	0.82278	85	60 11	0.812	81 11	0.06227	13	11 74	0.87427	87	71 11
0.753	77 12	0.07063	15	12 68	0.82363	85	66 12	0.813	89 12	0.06214	13	12 80	0.87514	87	77 12
0.754	84 13	0.07048	15	13 74	0.82448	85	71 13	0.814	97 13	0.06200	13	13 87	0.87600	87	84 13
0.755	91 14	0.07033	15	14 79	0.82533	85	77 14	0.815		0.06187	13		0.87687	87	
0.756	97 15	0.07018	15	15 85	0.82618	85	83 15	0.816		0.06174	13		0.87774	87	
0.757		0.07003	15		0.82703	85		0.817		0.06161	13		0.87861	86	
0.758		0.06988	15		0.82788	85		0.818		0.06147	13		0.87947	87	
0.759		0.06973	14		0.82873	86		0.819		0.06134	13		0.88034	87	
0.760		0.06959	15		0.82959	85		0.820		0.06121	13		0.88121	87	
0.761	1 4	0.06944	15	1 4	0.83044	85	8 6	0.821	1 2	0.06108	13	1 2	0.88208	87	8 8
0.762	4 1	0.06929	15	1 6	0.83129	85	4 1	0.822	5 1	0.06095	13	1 7	0.88295	87	4 1
0.763	11 2	0.06914	14	2 12	0.83214	86	10 2	0.823	13 2	0.06082	13	2 15	0.88382	87	12 2
0.764	18 3	0.06900	15	3 18	0.83300	85	16 3	0.824	21 3	0.06069	13	3 22	0.88469	87	19 3
0.765	26 4	0.06885	15	4 25	0.83385	85	22 4	0.825	30 4	0.06056	13	4 29	0.88556	87	26 4
0.766	33 5	0.06870	14	5 31	0.83470	86	28 5	0.826	38 5	0.06043	13	5 37	0.88643	87	34 5
0.767	40 6	0.06856	15	6 37	0.83556	85	34 6	0.827	46 6	0.06030	13	6 44	0.88730	87	41 6
0.768	47 7	0.06841	14	7 43	0.83641	86	40 7	0.828	55 7	0.06017	13	7 51	0.88817	87	48 7
0.769	54 8	0.06827	15	8 49	0.83727	85	47 8	0.829	63 8	0.06004	13	8 59	0.88904	87	56 8
0.770	61 9	0.06812	14	9 55	0.83812	86	53 9	0.830	71 9	0.05991	13	9 66	0.88991	87	63 9
0.771	68 10	0.06798	15	10 61	0.83898	85	59 10	0.831	80 10	0.05978	13	10 73	0.89078	87	70 10
0.772	76 11	0.06783	14	11 68	0.83983	86	65 11	0.832	88 11	0.05965	13	11 81	0.89165	87	78 11
0.773	83 12	0.06769	15	12 74	0.84069	85	71 12	0.833	96 12	0.05952	13	12 88	0.89252	87	85 12
0.774	90 13	0.06754	14	13 80	0.84154	86	77 13	0.834		0.05939	12		0.89339	88	
0.775	97 14	0.06740	15	14 86	0.84240	85	83 14	0.835		0.05927	13		0.89427	87	
0.776		0.06725	14		0.84325	86		0.836		0.05914	13		0.89514	87	
0.777		0.06711	14		0.84411	86		0.837		0.05901	12		0.89601	88	
0.778		0.06697	14		0.84497	86		0.838		0.05889	13		0.89689	87	
0.779		0.06683	15		0.84583	85		0.839		0.05876	13		0.89776	87	
0.780		0.06668			0.84668			0.840		0.05863			0.89863		
A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.

A.	P.P.	B.	d.	P.P.	C.	d.	P.P.
0.840	13	0.05863	12	13	0.89863	87	87
0.841	4	0.05851	12	17	0.89951	88	4
0.842	12	0.05838	13	213	0.90038	87	11
0.843	20	0.05825	13	320	0.90125	87	17
0.844	27	0.05813	12	427	0.90213	88	24
0.845	35	0.05800	13	533	0.90300	87	31
0.846	43	0.05788	12	640	0.90388	88	37
0.847	51	0.05775	13	747	0.90475	87	44
0.848	58	0.05763	12	854	0.90563	88	51
0.849	66	0.05751	12	960	0.90651	88	57
0.850	74	0.05738	13	1067	0.90738	87	64
0.851	81	0.05726	12	1174	0.90826	88	71
0.852	89	0.05714	12	1280	0.90914	88	77
0.853	97	0.05701	13	1387	0.91001	87	84
0.854		0.05689	12		0.91089	88	
0.855		0.05677	12		0.91177	88	
0.856		0.05664	13		0.91264	87	
0.857		0.05652	12		0.91352	88	
0.858		0.05640	12		0.91440	88	
0.859		0.05628	12		0.91528	88	
0.860		0.05616	12		0.91616	88	
0.861	12	0.05604	13	12	0.91704	87	88
0.862	5	0.05591	12	17	0.91791	88	4
0.863	13	0.05579	12	215	0.91879	88	12
0.864	21	0.05567	12	322	0.91967	88	19
0.865	30	0.05555	12	429	0.92055	88	26
0.866	38	0.05543	12	537	0.92143	88	34
0.867	46	0.05531	12	644	0.92231	88	41
0.868	55	0.05519	12	751	0.92319	88	48
0.869	63	0.05508	11	859	0.92408	89	56
0.870	71	0.05496	12	966	0.92496	88	63
0.871	80	0.05484	12	1073	0.92584	88	70
0.872	88	0.05472	12	1181	0.92672	88	78
0.873	96	0.05460	12	1288	0.92760	88	85
0.874		0.05448	12		0.92848	88	
0.875		0.05436	12		0.92936	89	
0.876		0.05425	11		0.93025	88	
0.877		0.05413	12		0.93113	88	
0.878		0.05401	12		0.93201	89	
0.879		0.05390	11		0.93290	88	
0.880		0.05378	12		0.93378	88	
0.881	11	0.05366	12	11	0.93466	89	89
0.882	5	0.05355	11	18	0.93555	88	5
0.883	14	0.05343	12	216	0.93643	89	13
0.884	23	0.05332	11	324	0.93732	88	21
0.885	32	0.05320	12	432	0.93820	88	29
0.886	41	0.05308	12	540	0.93908	88	37
0.887	51	0.05297	11	649	0.93997	89	45
0.888	60	0.05286	11	757	0.94086	89	53
0.889	69	0.05274	12	865	0.94174	88	61
0.890	78	0.05263	11	973	0.94263	89	69
0.891	87	0.05251	12	1081	0.94351	88	77
0.892	96	0.05240	11	1189	0.94440	89	85
0.893		0.05229	11		0.94529	89	
0.894		0.05217	12		0.94617	88	
0.895		0.05206	11		0.94706	89	
0.896		0.05195	11		0.94795	89	
0.897		0.05183	12		0.94883	88	
0.898		0.05172	11		0.94972	89	
0.899		0.05161	11		0.95061	89	
0.900		0.05150	11		0.95150	89	
A.	P.P.	B.	d.	P.P.	C.	d.	P.P.

A.	P.P.	B.	d.	P.P.	C.	d.	P.P.
0.900	11	0.05150	11	11	0.95150	89	89
0.901	5	0.05139	11	18	0.95239	89	5
0.902	14	0.05127	12	216	0.95327	88	13
0.903	23	0.05116	11	324	0.95416	89	21
0.904	32	0.05105	11	432	0.95505	89	29
0.905	41	0.05094	11	540	0.95594	89	37
0.906	51	0.05083	11	649	0.95683	89	45
0.907	60	0.05072	11	757	0.95772	89	53
0.908	69	0.05061	11	865	0.95861	89	61
0.909	78	0.05050	11	973	0.95950	89	69
0.910	87	0.05039	11	1081	0.96039	89	77
0.911	96	0.05028	11	1189	0.96128	89	85
0.912		0.05017	11		0.96217	89	
0.913		0.05006	11		0.96306	89	
0.914		0.04995	10		0.96395	90	
0.915		0.04985	11		0.96485	89	
0.916		0.04974	11		0.96574	89	
0.917		0.04963	11		0.96663	89	
0.918		0.04952	11		0.96752	89	
0.919		0.04941	10		0.96841	90	
0.920		0.04931	11		0.96931	89	
0.921	10	0.04920	11	10	0.97020	89	90
0.922	6	0.04909	11	19	0.97109	89	5
0.923	16	0.04898	11	218	0.97198	89	14
0.924	26	0.04888	10	327	0.97288	90	23
0.925	36	0.04877	11	436	0.97377	89	32
0.926	46	0.04867	10	545	0.97467	90	41
0.927	56	0.04856	11	654	0.97556	89	50
0.928	66	0.04845	11	763	0.97645	89	59
0.929	76	0.04835	10	872	0.97735	90	68
0.930	86	0.04824	11	981	0.97824	89	77
0.931	96	0.04814	10	1090	0.97914	90	86
0.932		0.04803	11		0.98003	89	
0.933		0.04793	10		0.98093	90	
0.934		0.04782	11		0.98182	89	
0.935		0.04772	10		0.98272	90	
0.936		0.04762	11		0.98362	90	
0.937		0.04751	11		0.98451	89	
0.938		0.04741	10		0.98541	90	
0.939		0.04731	10		0.98631	90	
0.940		0.04720	11		0.98720	89	
0.941	9	0.04710	10	9	0.98810	90	91
0.942	6	0.04700	11	110	0.98900	90	6
0.943	17	0.04689	11	220	0.98989	89	16
0.944	28	0.04679	10	330	0.99079	90	26
0.945	39	0.04669	10	440	0.99166	90	36
0.946	51	0.04659	10	551	0.99259	90	46
0.947	62	0.04649	10	661	0.99349	90	56
0.948	73	0.04639	10	771	0.99439	90	66
0.949	84	0.04628	11	881	0.99528	89	76
0.950	95	0.04618	10	991	0.99618	90	86
0.951		0.04608	10		0.99708	90	
0.952		0.04598	10		0.99798	90	
0.953		0.04588	10		0.99888	90	
0.954		0.04578	10		0.99978	90	
0.955		0.04568	10		1.00068	90	
0.956		0.04558	10		1.00158	90	
0.957		0.04548	10		1.00248	90	
0.958		0.04538	10		1.00338	90	
0.959		0.04528	10		1.00428	90	
0.960		0.04519	9		1.00519	91	
A.	P.P.	B.	d.	P.P.	C.	d.	P.P.

A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.
0.960	10	0.04519	10	10	1.00519	90	90	1.020	9	0.03961	8	9	1.05961	91	91
0.961	6 1	0.04509	10	1 9	1.00609	90	5 1	1.021	6 1	0.03953	8	1 10	1.06053	92	6 1
0.962	16 2	0.04499	10	2 18	1.00699	90	14 2	1.022	17 2	0.03944	9	2 20	1.06144	91	16 2
0.963	26 3	0.04489	10	3 27	1.00789	90	23 3	1.023	28 3	0.03935	9	3 30	1.06235	91	26 3
0.964	36 4	0.04479	10	4 36	1.00879	90	32 4	1.024	39 4	0.03926	9	4 40	1.06326	91	36 4
0.965	46 5	0.04469	10	5 45	1.00969	90	41 5	1.025	51 5	0.03918	8	5 51	1.06418	92	46 5
0.966	56 6	0.04460	9	6 54	1.01060	91	50 6	1.026	62 6	0.03909	9	6 61	1.06509	91	56 6
0.967	66 7	0.04450	10	7 63	1.01150	90	59 7	1.027	73 7	0.03901	8	7 71	1.06601	92	66 7
0.968	76 8	0.04440	10	8 72	1.01240	90	68 8	1.028	84 8	0.03892	9	8 81	1.06692	91	76 8
0.969	86 9	0.04430	10	9 81	1.01330	90	77 9	1.029	95 9	0.03883	9	9 91	1.06783	91	86 9
0.970	96 10	0.04422	9	10 90	1.01421	91	86 10	1.030		0.03875	8		1.06875	92	
0.971		0.04411	10		1.01511	90		1.031		0.03866	9		1.06966	91	
0.972		0.04401	9		1.01601	91		1.032		0.03858	8		1.07058	92	
0.973		0.04392	10		1.01692	90		1.033		0.03849	9		1.07149	91	
0.974		0.04382	9		1.01782	91		1.034		0.03841	8		1.07241	92	
0.975		0.04373	10		1.01873	90		1.035		0.03832	9		1.07332	91	
0.976		0.04363	10		1.01963	90		1.036		0.03824	8		1.07424	92	
0.977		0.04353	9		1.02053	91		1.037		0.03816	9		1.07516	91	
0.978		0.04344	10		1.02144	90		1.038		0.03807	8		1.07607	92	
0.979		0.04334	9		1.02234	91		1.039		0.03799	9		1.07699	91	
0.980		0.04325	10		1.02325	90		1.040		0.03790	8		1.07790	92	
0.981	9	0.04315	9	9 1	1.02415	91	9 1	1.041	8	0.03782	8	8	1.07882	92	9 2
0.982	6 1	0.04306	9	1 10	1.02506	91	6 1	1.042	7 1	0.03774	9	1 11	1.07974	91	6 1
0.983	17 2	0.04297	10	2 20	1.02597	90	16 2	1.043	19 2	0.03765	8	2 23	1.08065	92	17 2
0.984	28 3	0.04287	9	3 30	1.02687	91	26 3	1.044	32 3	0.03757	8	3 34	1.08157	92	28 3
0.985	39 4	0.04278	10	4 40	1.02778	90	36 4	1.045	44 4	0.03749	8	4 46	1.08249	92	39 4
0.986	51 5	0.04268	10	5 51	1.02868	91	46 5	1.046	57 5	0.03741	8	5 57	1.08341	92	51 5
0.987	62 6	0.04259	9	6 61	1.02959	91	56 6	1.047	69 6	0.03732	9	6 69	1.08432	91	62 6
0.988	73 7	0.04250	9	7 71	1.03050	91	66 7	1.048	82 7	0.03724	8	7 80	1.08524	92	73 7
0.989	84 8	0.04240	10	8 81	1.03140	90	76 8	1.049	94 8	0.03716	8	8 92	1.08616	92	84 8
0.990	95 9	0.04231	9	9 91	1.03231	91	86 9	1.050		0.03708	8		1.08708	92	
0.991		0.04222	9		1.03322	91		1.051		0.03700	9		1.08800	91	
0.992		0.04213	10		1.03413	90		1.052		0.03691	8		1.08891	92	
0.993		0.04203	9		1.03503	91		1.053		0.03683	8		1.08983	92	
0.994		0.04194	9		1.03594	91		1.054		0.03675	8		1.09075	92	
0.995		0.04185	9		1.03685	91		1.055		0.03667	8		1.09167	92	
0.996		0.04176	9		1.03776	91		1.056		0.03659	8		1.09259	92	
0.997		0.04167	10		1.03867	90		1.057		0.03651	8		1.09351	92	
0.998		0.04157	9		1.03957	91		1.058		0.03643	8		1.09443	92	
0.999		0.04148	9		1.04048	91		1.059		0.03635	8		1.09535	92	
0.000		0.04139	9		1.04139	91		1.060		0.03627	8		1.09627	92	
0.001	8	0.04130	9	8	1.04230	91	9 2	1.061	7	0.03619	8	7	1.09719	92	9 3
0.002	7 1	0.04121	9	1 11	1.04321	91	6 1	1.062	8 1	0.03611	8	1 13	1.09811	92	7 1
0.003	19 2	0.04112	9	2 23	1.04412	91	18 2	1.063	22 2	0.03603	8	2 27	1.09903	92	20 2
0.004	32 3	0.04103	9	3 34	1.04503	91	29 3	1.064	36 3	0.03595	8	3 40	1.09995	92	34 3
0.005	44 4	0.04094	9	4 46	1.04594	91	41 4	1.065	51 4	0.03587	8	4 53	1.10087	92	47 4
0.006	57 5	0.04085	9	5 57	1.04685	91	52 5	1.066	65 5	0.03579	8	5 66	1.10179	92	60 5
0.007	69 6	0.04076	9	6 69	1.04776	91	64 6	1.067	79 6	0.03571	8	6 80	1.10271	92	74 6
0.008	82 7	0.04067	9	7 80	1.04867	91	75 7	1.068	93 7	0.03563	8	7 93	1.10363	92	87 7
0.009	94 8	0.04058	9	8 92	1.04958	91	87 8	1.069		0.03555	7		1.10455	93	
0.010		0.04049	9		1.05049	91		1.070		0.03548	8		1.10548	92	
0.011		0.04040	8		1.05140	92		1.071		0.03540	8		1.10640	92	
0.012		0.04032	9		1.05232	91		1.072		0.03532	8		1.10732	92	
0.013		0.04023	9		1.05323	91		1.073		0.03524	8		1.10824	92	
0.014		0.04014	9		1.05414	91		1.074		0.03516	7		1.10916	93	
0.015		0.04005	9		1.05505	91		1.075		0.03509	8		1.11009	92	
0.016		0.03996	9		1.05596	91		1.076		0.03501	8		1.11101	92	
0.017		0.03987	8		1.05687	92		1.077		0.03493	8		1.11193	92	
0.018		0.03979	9		1.05779	91		1.078		0.03485	7		1.11285	93	
0.019		0.03970	9		1.05870	91		1.079		0.03478	8		1.11378	92	
0.020		0.03961	9		1.05961	91		1.080		0.03470	8		1.11470	92	
A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.

A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.
I.080	8	0.03470	8	8	I.11470	92	9 2	I.140	7	0.03037	6	7	I.17037	94	9 3
I.081	7 1	0.03462	8	1 11	I.11562	92	6 1	I.141	8 1	0.03031	6	1 13	I.17131	94	7 1
I.082	19 2	0.03455	7	2 23	I.11655	93	18 2	I.142	22 2	0.03024	7	2 27	I.17224	93	20 2
I.083	32 3	0.03447	8	3 34	I.11747	92	29 3	I.143	36 3	0.03017	7	3 40	I.17317	93	34 3
I.084	44 4	0.03439	8	4 46	I.11839	92	41 4	I.144	51 4	0.03011	6	4 53	I.17411	94	47 4
I.085	57 5	0.03432	7	5 57	I.11932	93	52 5	I.145	65 5	0.03004	7	5 66	I.17504	93	60 5
I.086	69 6	0.03424	8	6 69	I.12024	92	64 6	I.146	79 6	0.02997	7	6 80	I.17597	94	74 6
I.087	82 7	0.03417	7	7 80	I.12117	93	75 7	I.147	93 7	0.02991	6	7 93	I.17691	94	87 7
I.088	94 8	0.03409	8	8 92	I.12209	92	87 8	I.148		0.02984	7		I.17784	93	
I.089		0.03401	8		I.12301	92		I.149		0.02977	6		I.17877	94	
I.090		0.03394	7		I.12394	93		I.150		0.02971	7		I.17971	93	
I.091		0.03386	8		I.12486	92		I.151		0.02964	7		I.18064	93	
I.092		0.03379	7		I.12579	93		I.152		0.02957	6		I.18157	94	
I.093		0.03371	8		I.12671	92		I.153		0.02951	7		I.18251	93	
I.094		0.03364	7		I.12764	93		I.154		0.02944	6		I.18344	94	
I.095		0.03357	8		I.12857	92		I.155		0.02938	7		I.18438	93	
I.096		0.03349	7		I.12949	93		I.156		0.02931	6		I.18531	94	
I.097		0.03342	8		I.13042	92		I.157		0.02925	7		I.18625	93	
I.098		0.03334	7		I.13134	93		I.158		0.02918	6		I.18718	94	
I.099		0.03327	8		I.13227	92		I.159		0.02912	7		I.18812	93	
I.100		0.03320	7		I.13320	93		I.160		0.02905	6		I.18905	94	
I.101	7	0.03312	8	7	I.13412	92	9 3	I.161	6	0.02899	6	6	I.18999	94	9 4
I.102	8 1	0.03305	7	1 13	I.13505	93	7 1	I.162	9 1	0.02892	7	1 16	I.19092	93	8 1
I.103	22 2	0.03298	7	2 27	I.13598	93	20 2	I.163	26 2	0.02886	6	2 31	I.19186	94	24 2
I.104	36 3	0.03290	8	3 40	I.13690	92	34 3	I.164	42 3	0.02879	7	3 47	I.19279	93	40 3
I.105	51 4	0.03283	7	4 53	I.13783	93	47 4	I.165	59 4	0.02873	6	4 63	I.19373	94	55 4
I.106	65 5	0.03276	8	5 66	I.13876	92	60 5	I.166	76 5	0.02867	7	5 78	I.19467	93	71 5
I.107	79 6	0.03268	7	6 80	I.13968	93	74 6	I.167	92 6	0.02860	6	6 94	I.19560	94	87 6
I.108	93 7	0.03261	8	7 93	I.14061	92	87 7	I.168		0.02854	7		I.19654	93	
I.109		0.03254	7		I.14154	93		I.169		0.02848	6		I.19748	94	
I.110		0.03247	8		I.14247	92		I.170		0.02841	7		I.19841	93	
I.111		0.03240	7		I.14340	93		I.171		0.02835	6		I.19935	94	
I.112		0.03232	8		I.14432	92		I.172		0.02829	7		I.20029	93	
I.113		0.03225	7		I.14525	93		I.173		0.02822	6		I.20122	94	
I.114		0.03218	8		I.14618	92		I.174		0.02816	7		I.20216	93	
I.115		0.03211	7		I.14711	93		I.175		0.02810	6		I.20310	94	
I.116		0.03204	8		I.14804	92		I.176		0.02803	7		I.20403	93	
I.117		0.03197	7		I.14897	93		I.177		0.02797	6		I.20497	94	
I.118		0.03190	8		I.14990	92		I.178		0.02791	7		I.20591	93	
I.119	6	0.03183	7	6	I.15083	93		I.179	5	0.02785	6	5	I.20685	94	
I.120	9 1	0.03175	8	1 16	I.15175	92	9 4	I.180	5 1	0.02779	7	5 19	I.20779	93	9 5
I.121	26 2	0.03168	7	2 31	I.15268	93	8 1	I.181	11 1	0.02772	6	1 19	I.20872	94	10 1
I.122	42 3	0.03161	8	3 47	I.15361	92	24 2	I.182	31 2	0.02766	7	2 38	I.20966	93	29 2
I.123	59 4	0.03154	7	4 63	I.15454	93	40 3	I.183	51 3	0.02760	6	3 57	I.21060	94	48 3
I.124	76 5	0.03147	8	5 78	I.15547	92	55 4	I.184	71 4	0.02754	7	4 76	I.21154	93	67 4
I.125	92 6	0.03140	7	6 94	I.15640	93	71 5	I.185	91 5	0.02748	6	5 95	I.21248	94	86 5
I.126		0.03133	8		I.15733	92	87 6	I.186		0.02742	7		I.21342	93	
I.127		0.03126	7		I.15826	93		I.187		0.02735	6		I.21435	94	
I.128		0.03120	8		I.15920	92		I.188		0.02729	7		I.21529	93	
I.129		0.03113	7		I.16013	93		I.189		0.02723	6		I.21623	94	
I.130		0.03106	8		I.16106	92		I.190		0.02717	7		I.21717	93	
I.131		0.03099	7		I.16199	93		I.191		0.02711	6		I.21811	94	
I.132		0.03092	8		I.16292	92		I.192		0.02705	7		I.21905	93	
I.133		0.03085	7		I.16385	93		I.193		0.02699	6		I.21999	94	
I.134		0.03078	8		I.16478	92		I.194		0.02693	7		I.22093	93	
I.135		0.03071	7		I.16571	93		I.195		0.02687	6		I.22187	94	
I.136		0.03065	8		I.16665	92		I.196		0.02681	7		I.22281	93	
I.137		0.03058	7		I.16758	93		I.197		0.02675	6		I.22375	94	
I.138		0.03051	8		I.16851	92		I.198		0.02669	7		I.22469	93	
I.139		0.03044	7		I.16944	93		I.199		0.02663	6		I.22563	94	
I.140		0.03037	8		I.17037	92		I.200		0.02657	7		I.22657	93	
A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.

A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.
I.200	6	0.02657	6	6	I.22657	94	94	I.260	6	0.02323	5	6	I.28323	95	94
I.201	9	0.02651	6	116	I.22751	94	81	I.261	9	0.02318	5	116	I.28418	95	81
I.202	26	0.02645	6	231	I.22845	94	24	I.262	26	0.02313	5	231	I.28513	95	24
I.203	42	0.02639	5	347	I.22939	95	40	I.263	42	0.02308	5	347	I.28608	95	40
I.204	59	0.02634	5	463	I.23034	94	55	I.264	59	0.02303	5	463	I.28703	94	55
I.205	76	0.02628	6	578	I.23128	94	71	I.265	76	0.02297	5	578	I.28797	95	71
I.206	92	0.02622	6	694	I.23222	94	87	I.266	92	0.02292	5	694	I.28892	95	87
I.207		0.02616	6		I.23316	94		I.267		0.02287	5		I.28987	95	
I.208		0.02610	6		I.23410	94		I.268		0.02282	5		I.29082	95	
I.209		0.02604	5		I.23504	95		I.269		0.02277	5		I.29177	95	
I.210		0.02599	6		I.23599	94		I.270		0.02272	5		I.29272	95	
I.211		0.02593	6		I.23693	94		I.271		0.02267	5		I.29367	95	
I.212		0.02587	6		I.23787	94		I.272		0.02262	5		I.29462	95	
I.213		0.02581	6		I.23881	94		I.273		0.02257	5		I.29557	95	
I.214		0.02575	5		I.23975	95		I.274		0.02252	6		I.29652	94	
I.215		0.02570	6		I.24070	94		I.275		0.02246	5		I.29746	95	
I.216		0.02564	6		I.24164	94		I.276		0.02241	5		I.29841	95	
I.217		0.02558	6		I.24258	94		I.277		0.02236	5		I.29936	95	
I.218		0.02552	5		I.24352	95		I.278		0.02231	5		I.30031	95	
I.219		0.02547	6		I.24447	94		I.279		0.02226	5		I.30126	95	
I.220	5	0.02541	6	5	I.24541	94	95	I.280	5	0.02221	5	5	I.30221	95	95
I.221	11	0.02535	5	119	I.24635	95	10	I.281	11	0.02216	5	119	I.30316	95	10
I.222	31	0.02530	6	238	I.24730	94	29	I.282	31	0.02211	5	238	I.30411	96	29
I.223	51	0.02524	6	357	I.24824	94	48	I.283	51	0.02207	5	357	I.30507	95	48
I.224	71	0.02518	5	476	I.24918	95	67	I.284	71	0.02202	5	476	I.30602	95	67
I.225	91	0.02513	6	595	I.25013	94	86	I.285	91	0.02197	5	595	I.30697	95	86
I.226		0.02507	5		I.25107	95		I.286		0.02192	5		I.30792	95	
I.227		0.02502	6		I.25202	94		I.287		0.02187	5		I.30887	95	
I.228		0.02496	6		I.25296	94		I.288		0.02182	5		I.30982	95	
I.229		0.02490	5		I.25390	95		I.289		0.02177	5		I.31077	95	
I.230		0.02485	6		I.25485	94		I.290		0.02172	5		I.31172	95	
I.231		0.02479	5		I.25579	95		I.291		0.02167	5		I.31267	95	
I.232		0.02474	6		I.25674	94		I.292		0.02162	5		I.31362	96	
I.233		0.02468	5		I.25768	95		I.293		0.02158	4		I.31458	95	
I.234		0.02463	5		I.25863	94		I.294		0.02153	5		I.31553	95	
I.235		0.02457	5		I.25957	95		I.295		0.02148	5		I.31648	95	
I.236		0.02452	6		I.26052	94		I.296		0.02143	5		I.31743	95	
I.237		0.02446	5		I.26146	95		I.297		0.02138	5		I.31838	95	
I.238		0.02441	6		I.26241	94		I.298		0.02133	4		I.31933	96	
I.239	4	0.02435	5	4	I.26335	95	96	I.299	4	0.02129	5	4	I.32029	95	96
I.240	13	0.02430	6	124	I.26430	94	13	I.300	13	0.02124	5	124	I.32124	95	13
I.241	38	0.02424	5	248	I.26524	95	37	I.301	38	0.02119	5	248	I.32219	95	37
I.242	63	0.02419	5	372	I.26619	95	61	I.302	63	0.02114	5	372	I.32314	96	61
I.243	88	0.02414	6	496	I.26714	94	85	I.303	88	0.02110	5	496	I.32410	95	85
I.244		0.02408	5		I.26808	95		I.304		0.02105	5		I.32505	95	
I.245		0.02403	6		I.26903	94		I.305		0.02100	5		I.32600	95	
I.246		0.02397	5		I.26997	95		I.306		0.02095	5		I.32695	96	
I.247		0.02392	5		I.27092	95		I.307		0.02091	4		I.32791	95	
I.248		0.02387	6		I.27187	94		I.308		0.02086	5		I.32886	95	
I.249		0.02381	5		I.27281	95		I.309		0.02081	5		I.32981	96	
I.250		0.02376	5		I.27376	95		I.310		0.02077	5		I.33077	95	
I.251		0.02371	6		I.27471	94		I.311		0.02072	5		I.33172	95	
I.252		0.02365	5		I.27565	95		I.312		0.02067	4		I.33267	96	
I.253		0.02360	5		I.27660	95		I.313		0.02063	5		I.33363	95	
I.254		0.02355	5		I.27755	95		I.314		0.02058	5		I.33458	95	
I.255		0.02350	6		I.27850	94		I.315		0.02053	5		I.33553	96	
I.256		0.02344	5		I.27944	95		I.316		0.02049	5		I.33649	95	
I.257		0.02339	5		I.28039	95		I.317		0.02044	4		I.33744	96	
I.258		0.02334	5		I.28134	95		I.318		0.02040	5		I.33840	95	
I.259		0.02329	6		I.28229	94		I.319		0.02035	5		I.33935	95	
I.260		0.02323			I.28323			I.320		0.02030			I.34030		
A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.

A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.
I.320	5	0.02030	4	5	I.34030	95	95	I.380	4	0.01774	4	4	I.39774	96	96
I.321	11	0.02026	4	11	I.34126	95	10	I.381	13	0.01770	4	124	I.39870	96	13
I.322	31	0.02021	4	238	I.34221	95	29	I.382	38	0.01766	4	248	I.39966	96	37
I.323	51	0.02017	4	357	I.34317	95	48	I.383	63	0.01762	4	372	I.40062	96	61
I.324	71	0.02012	4	476	I.34412	95	67	I.384	88	0.01758	4	496	I.40158	96	85
I.325	91	0.02008	4	595	I.34508	95	86	I.385		0.01754	4		I.40254	96	
I.326		0.02003	4		I.34603	95		I.386		0.01750	4		I.40350	96	
I.327		0.01999	4		I.34699	95		I.387		0.01746	4		I.40446	96	
I.328		0.01994	4		I.34794	95		I.388		0.01742	4		I.40542	96	
I.329		0.01990	4		I.34890	95		I.389		0.01738	4		I.40638	96	
I.330		0.01985	4		I.34985	95		I.390		0.01734	4		I.40734	96	
I.331		0.01981	4		I.35081	95		I.391		0.01730	4		I.40830	96	
I.332		0.01976	4		I.35176	95		I.392		0.01726	4		I.40926	96	
I.333		0.01972	4		I.35272	95		I.393		0.01722	4		I.41022	96	
I.334		0.01967	4		I.35367	95		I.394		0.01719	4		I.41119	96	
I.335		0.01963	4		I.35463	95		I.395		0.01715	4		I.41215	96	
I.336		0.01959	4		I.35559	95		I.396		0.01711	4		I.41311	96	
I.337		0.01954	4		I.35654	95		I.397		0.01707	4		I.41407	96	
I.338		0.01950	4		I.35750	95		I.398		0.01703	4		I.41503	96	
I.339		0.01945	4		I.35845	95		I.399		0.01699	4		I.41599	96	
I.340		0.01941	4		I.35941	95		I.400		0.01695	4		I.41695	96	
I.341		0.01937	4		I.36037	95		I.401		0.01692	4		I.41792	96	
I.342		0.01932	4		I.36132	95		I.402		0.01688	4		I.41888	96	
I.343		0.01928	4		I.36228	95		I.403		0.01684	4		I.41984	96	
I.344		0.01924	4		I.36324	95		I.404		0.01680	4		I.42080	96	
I.345		0.01919	4		I.36419	95		I.405		0.01676	4		I.42176	96	
I.346		0.01915	4		I.36515	95		I.406		0.01673	4		I.42273	96	
I.347		0.01911	4		I.36611	95		I.407		0.01669	4		I.42369	96	
I.348		0.01906	4		I.36706	95		I.408		0.01665	4		I.42465	96	
I.349		0.01902	4		I.36802	95		I.409		0.01661	4		I.42561	96	
I.350		0.01898	4		I.36898	95		I.410		0.01658	4		I.42658	96	
I.351	4	0.01894	4	4	I.36994	95	96	I.411	3	0.01654	4	3	I.42754	96	97
I.352	13	0.01889	4	124	I.37089	95	13	I.412	17	0.01650	4	132	I.42850	96	17
I.353	38	0.01885	4	248	I.37185	95	37	I.413	51	0.01646	4	265	I.42946	96	49
I.354	63	0.01881	4	372	I.37281	95	61	I.414	84	0.01643	4	397	I.43043	96	81
I.355	88	0.01877	4	496	I.37377	95	85	I.415		0.01639	4		I.43139	96	
I.356		0.01872	4		I.37472	95		I.416		0.01635	4		I.43235	96	
I.357		0.01868	4		I.37568	95		I.417		0.01632	4		I.43332	96	
I.358		0.01864	4		I.37664	95		I.418		0.01628	4		I.43428	96	
I.359		0.01860	4		I.37760	95		I.419		0.01624	4		I.43524	96	
I.360		0.01856	4		I.37856	95		I.420		0.01621	4		I.43621	96	
I.361		0.01851	4		I.37951	95		I.421		0.01617	4		I.43717	96	
I.362		0.01847	4		I.38047	95		I.422		0.01613	4		I.43813	96	
I.363		0.01843	4		I.38143	95		I.423		0.01610	4		I.43910	96	
I.364		0.01839	4		I.38239	95		I.424		0.01606	4		I.44006	96	
I.365		0.01835	4		I.38335	95		I.425		0.01602	4		I.44102	96	
I.366		0.01831	4		I.38431	95		I.426		0.01599	4		I.44199	96	
I.367		0.01827	4		I.38527	95		I.427		0.01595	4		I.44295	96	
I.368		0.01822	4		I.38622	95		I.428		0.01591	4		I.44391	96	
I.369		0.01818	4		I.38718	95		I.429		0.01588	4		I.44488	96	
I.370		0.01814	4		I.38814	95		I.430		0.01584	4		I.44584	96	
I.371		0.01810	4		I.38910	95		I.431		0.01581	4		I.44681	96	
I.372		0.01806	4		I.39006	95		I.432		0.01577	4		I.44777	96	
I.373		0.01802	4		I.39102	95		I.433		0.01574	4		I.44874	96	
I.374		0.01798	4		I.39198	95		I.434		0.01570	4		I.44970	96	
I.375		0.01794	4		I.39294	95		I.435		0.01566	4		I.45066	96	
I.376		0.01790	4		I.39390	95		I.436		0.01563	4		I.45163	96	
I.377		0.01786	4		I.39486	95		I.437		0.01559	4		I.45259	96	
I.378		0.01782	4		I.39582	95		I.438		0.01556	4		I.45356	96	
I.379		0.01778	4		I.39678	95		I.439		0.01552	4		I.45452	96	
I.380		0.01774	4		I.39774	95		I.440		0.01549	4		I.45549	96	
A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.

A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.
I.440	4	0.01549	4	4	I.45549	96	96	I.500	3	0.01352	3	3	I.51352	97	97
I.441	13	0.01545	4	124	I.45645	97	13	I.501	17	0.01349	3	132	I.51449	97	17
I.442	38	0.01542	3	248	I.45742	97	37	I.502	51	0.01346	3	265	I.51546	97	49
I.443	63	0.01538	4	372	I.45838	96	61	I.503	84	0.01343	3	397	I.51643	97	81
I.444	88	0.01535	3	496	I.45935	97	85	I.504		0.01340	3		I.51740	97	
I.445		0.01531	4		I.46031	96		I.505		0.01337	3		I.51837	97	
I.446		0.01528	3		I.46128	97		I.506		0.01334	3		I.51934	97	
I.447		0.01525	3		I.46225	97		I.507		0.01331	3		I.52031	97	
I.448		0.01521	4		I.46321	96		I.508		0.01328	3		I.52128	97	
I.449		0.01518	3		I.46418	97		I.509		0.01325	3		I.52225	97	
I.450		0.01514	4		I.46514	96		I.510		0.01322	3		I.52322	97	
I.451		0.01511	3		I.46611	97		I.511		0.01319	3		I.52419	97	
I.452		0.01507	4		I.46707	96		I.512		0.01316	3		I.52516	97	
I.453		0.01504	3		I.46804	97		I.513		0.01313	3		I.52613	97	
I.454		0.01501	3		I.46901	97		I.514		0.01310	3		I.52710	97	
I.455		0.01497	4		I.46997	96		I.515		0.01307	3		I.52807	97	
I.456		0.01494	3		I.47094	97		I.516		0.01304	3		I.52904	97	
I.457		0.01490	4		I.47190	96		I.517		0.01301	3		I.53001	97	
I.458		0.01487	3		I.47287	97		I.518		0.01298	3		I.53098	97	
I.459		0.01484	3		I.47384	97		I.519		0.01295	3		I.53195	97	
I.460		0.01480	4		I.47480	96		I.520		0.01292	3		I.53292	97	
I.461		0.01477	3		I.47577	97		I.521		0.01289	3		I.53389	97	
I.462		0.01474	3		I.47674	97		I.522		0.01286	3		I.53486	97	
I.463		0.01470	4		I.47770	96		I.523		0.01283	3		I.53583	97	
I.464		0.01467	3		I.47867	97		I.524		0.01280	2		I.53680	97	
I.465		0.01464	3		I.47964	97		I.525		0.01278	3		I.53778	98	
I.466		0.01460	4		I.48060	96		I.526		0.01275	3		I.53875	97	
I.467		0.01457	3		I.48157	97		I.527		0.01272	3		I.53972	97	
I.468		0.01454	3		I.48254	97		I.528		0.01269	3		I.54069	97	
I.469		0.01450	4		I.48350	96		I.529		0.01266	3		I.54166	97	
I.470		0.01447	3		I.48447	97	97	I.530	2	0.01263	3		I.54263	97	
I.471	17	0.01444	3	3	I.48544	97	17	I.531	26	0.01260	3	2	I.54360	97	98
I.472	51	0.01441	3	132	I.48641	96	49	I.532	76	0.01257	2	149	I.54457	97	25
I.473	84	0.01437	4	265	I.48737	97	81	I.533		0.01255	3	298	I.54555	98	74
I.474		0.01434	3	397	I.48834	97		I.534		0.01252	3		I.54652	97	
I.475		0.01431	3		I.48931	97		I.535		0.01249	3		I.54749	97	
I.476		0.01428	3		I.49028	97		I.536		0.01246	3		I.54846	97	
I.477		0.01424	4		I.49124	96		I.537		0.01243	3		I.54943	97	
I.478		0.01421	3		I.49221	97		I.538		0.01240	3		I.55040	97	
I.479		0.01418	3		I.49318	97		I.539		0.01238	2		I.55138	98	
I.480		0.01415	3		I.49415	97		I.540		0.01235	3		I.55235	97	
I.481		0.01412	3		I.49512	96		I.541		0.01232	3		I.55332	97	
I.482		0.01408	4		I.49608	97		I.542		0.01229	3		I.55429	97	
I.483		0.01405	3		I.49705	97		I.543		0.01226	3		I.55526	97	
I.484		0.01402	3		I.49802	97		I.544		0.01224	2		I.55624	98	
I.485		0.01399	3		I.49899	97		I.545		0.01221	3		I.55721	97	
I.486		0.01396	3		I.49996	97		I.546		0.01218	3		I.55818	97	
I.487		0.01393	3		I.50093	97		I.547		0.01215	3		I.55915	97	
I.488		0.01389	4		I.50189	96		I.548		0.01213	2		I.56013	98	
I.489		0.01386	3		I.50286	97		I.549		0.01210	3		I.56110	97	
I.490		0.01383	3		I.50383	97		I.550		0.01207	3		I.56207	97	
I.491		0.01380	3		I.50480	97		I.551		0.01204	3		I.56304	97	
I.492		0.01377	3		I.50577	97		I.552		0.01202	2		I.56402	98	
I.493		0.01374	3		I.50674	97		I.553		0.01199	3		I.56499	97	
I.494		0.01371	3		I.50771	97		I.554		0.01196	3		I.56596	97	
I.495		0.01368	3		I.50868	97		I.555		0.01193	3		I.56693	97	
I.496		0.01364	4		I.50964	96		I.556		0.01191	2		I.56791	98	
I.497		0.01361	3		I.51061	97		I.557		0.01188	3		I.56888	97	
I.498		0.01358	3		I.51158	97		I.558		0.01185	3		I.56985	97	
I.499		0.01355	3		I.51255	97		I.559		0.01183	2		I.57083	98	
I.500		0.01352	3		I.51352	97		I.560		0.01180	3		I.57180	97	
A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.

A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.
I.560	3	0.01180	3	3	I.57180	97	97	I.620	3	0.01030	3	3	I.63030	97	97
I.561	17	0.01177	3	132	I.57277	97	17	I.621	17	0.01027	3	132	I.63127	97	17
I.562	51	0.01175	2	265	I.57375	98	49	I.622	51	0.01025	2	265	I.63225	98	49
I.563	84	0.01172	3	397	I.57472	97	81	I.623	84	0.01022	3	397	I.63322	97	81
I.564		0.01169	2		I.57569	98		I.624		0.01020	2		I.63420	98	
I.565		0.01167	3		I.57667	97		I.625		0.01018	2		I.63518	98	
I.566		0.01164	3		I.57764	97		I.626		0.01016	3		I.63616	97	
I.567		0.01161	2		I.57861	98		I.627		0.01013	2		I.63713	98	
I.568		0.01159	3		I.57959	97		I.628		0.01011	2		I.63811	98	
I.569		0.01156	3		I.58056	97		I.629		0.01009	3		I.63909	97	
I.570		0.01153	2		I.58153	98		I.630		0.01006	2		I.64006	98	
I.571		0.01151	3		I.58251	97		I.631		0.01004	2		I.64104	98	
I.572		0.01148	2		I.58348	98		I.632		0.01002	3		I.64202	97	
I.573		0.01146	3		I.58446	97		I.633		0.00999	2		I.64299	98	
I.574		0.01143	3		I.58543	97		I.634		0.00997	2		I.64397	98	
I.575		0.01140	2		I.58640	98		I.635		0.00995	2		I.64495	98	
I.576		0.01138	3		I.58738	97		I.636		0.00993	3		I.64593	97	
I.577		0.01135	2		I.58835	98		I.637		0.00990	2		I.64690	98	
I.578		0.01133	3		I.58933	97		I.638		0.00988	2		I.64788	98	
I.579		0.01130	2		I.59030	98		I.639		0.00986	2		I.64886	98	
I.580		0.01128	3		I.59128	97		I.640		0.00984	3		I.64984	97	
I.581		0.01125	3		I.59225	97		I.641		0.00981	2		I.65081	98	
I.582		0.01122	2		I.59322	98		I.642		0.00979	2		I.65179	98	
I.583		0.01120	3		I.59420	97		I.643		0.00977	2		I.65277	98	
I.584		0.01117	2		I.59517	98		I.644		0.00975	2		I.65375	98	
I.585		0.01115	3		I.59615	97		I.645		0.00973	3		I.65473	97	
I.586		0.01112	2		I.59712	98		I.646		0.00970	2		I.65570	98	
I.587		0.01110	3		I.59810	97		I.647		0.00968	2		I.65668	98	
I.588		0.01107	2		I.59907	98		I.648		0.00966	2		I.65766	98	
I.589		0.01105	3		I.60005	97		I.649		0.00964	2		I.65864	98	
I.590	2	0.01102	2	2	I.60102	98	98	I.650	2	0.00962	3	2	I.65962	97	98
I.591	26	0.01100	3	149	I.60200	97	25	I.651	26	0.00959	2	149	I.66059	98	25
I.592	76	0.01097	2	298	I.60297	98	74	I.652	76	0.00957	2	298	I.66157	98	74
I.593		0.01095	3		I.60395	97		I.653		0.00955	2		I.66255	98	
I.594		0.01092	2		I.60492	98		I.654		0.00953	2		I.66353	98	
I.595		0.01090	3		I.60590	97		I.655		0.00951	3		I.66451	97	
I.596		0.01087	2		I.60687	98		I.656		0.00948	2		I.66548	98	
I.597		0.01085	3		I.60785	97		I.657		0.00946	2		I.66646	98	
I.598		0.01082	2		I.60882	98		I.658		0.00944	2		I.66744	98	
I.599		0.01080	3		I.60980	97		I.659		0.00942	2		I.66842	98	
I.600		0.01077	2		I.61077	98		I.660		0.00940	2		I.66940	98	
I.601		0.01075	2		I.61175	98		I.661		0.00938	2		I.67038	98	
I.602		0.01073	3		I.61273	97		I.662		0.00936	3		I.67136	97	
I.603		0.01070	2		I.61370	98		I.663		0.00933	2		I.67233	98	
I.604		0.01068	3		I.61468	97		I.664		0.00931	2		I.67331	98	
I.605		0.01065	2		I.61565	98		I.665		0.00929	2		I.67429	98	
I.606		0.01063	3		I.61663	97		I.666		0.00927	2		I.67527	98	
I.607		0.01060	2		I.61760	98		I.667		0.00925	2		I.67625	98	
I.608		0.01058	2		I.61858	98		I.668		0.00923	2		I.67723	98	
I.609		0.01056	3		I.61956	97		I.669		0.00921	2		I.67821	98	
I.610		0.01053	2		I.62053	98		I.670		0.00919	2		I.67919	98	
I.611		0.01051	3		I.62151	97		I.671		0.00917	2		I.68017	98	
I.612		0.01048	2		I.62248	98		I.672		0.00915	3		I.68115	97	
I.613		0.01046	2		I.62346	98		I.673		0.00912	2		I.68212	98	
I.614		0.01044	3		I.62444	97		I.674		0.00910	2		I.68310	98	
I.615		0.01041	2		I.62541	98		I.675		0.00908	2		I.68408	98	
I.616		0.01039	2		I.62639	98		I.676		0.00906	2		I.68506	98	
I.617		0.01037	3		I.62737	97		I.677		0.00904	2		I.68604	98	
I.618		0.01034	2		I.62834	98		I.678		0.00902	2		I.68702	98	
I.619		0.01032	2		I.62932	98		I.679		0.00900	2		I.68800	98	
I.620		0.01030			I.63030			I.680		0.00898			I.68898		
A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.

A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.			
1.680	2	0.00898	2	2	1.68898	98	98	1.740	2	0.00783	2	2	1.74783	98	98			
1.681	26	1	0.00896	2	1.68996	98	25	1	1.741	26	1	0.00781	2	1	1.74881	98	25	1
1.682	76	2	0.00894	2	1.69094	98	74	2	1.742	76	2	0.00780	2	2	1.74980	99	74	2
1.683		0.00892	2		1.69192	98			1.743		0.00778	2		1.75078	98			
1.684		0.00890	2		1.69290	98			1.744		0.00776	2		1.75176	98			
1.685		0.00888	2		1.69388	98			1.745		0.00774	1		1.75274	99			
1.686		0.00886	2		1.69486	98			1.746		0.00773	2		1.75373	98			
1.687		0.00884	2		1.69584	98			1.747		0.00771	2		1.75471	98			
1.688		0.00882	2		1.69682	98			1.748		0.00769	2		1.75569	98			
1.689		0.00880	2		1.69780	98			1.749		0.00767	1		1.75667	99			
1.690		0.00878	2		1.69878	98			1.750		0.00766	2		1.75766	98			
1.691		0.00876	2		1.69976	98			1.751		0.00764	2		1.75864	98			
1.692		0.00874	2		1.70074	98			1.752		0.00762	2		1.75962	98			
1.693		0.00872	2		1.70172	98			1.753		0.00760	1		1.76060	99			
1.694		0.00870	2		1.70270	98			1.754		0.00759	2		1.76159	98			
1.695		0.00868	2		1.70368	98			1.755		0.00757	2		1.76257	98			
1.696		0.00866	2		1.70466	98			1.756		0.00755	2		1.76355	98			
1.697		0.00864	2		1.70564	98			1.757		0.00753	1		1.76453	99			
1.698		0.00862	2		1.70662	98			1.758		0.00752	2		1.76552	98			
1.699		0.00860	2		1.70760	98			1.759		0.00750	2		1.76650	98			
1.700		0.00858	2		1.70858	98			1.760		0.00748	1		1.76748	99			
1.701		0.00856	2		1.70956	98			1.761		0.00747	2		1.76847	98			
1.702		0.00854	2		1.71054	98			1.762		0.00745	2		1.76945	98			
1.703		0.00852	2		1.71152	98			1.763		0.00743	2		1.77043	98			
1.704		0.00850	2		1.71250	98			1.764		0.00741	1		1.77141	99			
1.705		0.00848	2		1.71348	98			1.765		0.00740	2		1.77240	98			
1.706		0.00846	2		1.71446	98			1.766		0.00738	2		1.77338	98			
1.707		0.00844	2		1.71544	98			1.767		0.00736	1		1.77436	99			
1.708		0.00842	1		1.71642	99			1.768		0.00735	2		1.77535	98			
1.709		0.00841	2		1.71741	98			1.769		0.00733	2		1.77633	98			
1.710	I	0.00839	2	I	1.71839	98	99	I	1.770	I	0.00731	1	I	1.77731	99	99	I	
1.711	51	1	0.00837	2	1.71937	98	50	1	1.771	51	1	0.00730	2	1	1.77830	98	50	1
1.712		0.00835	2		1.72035	98			1.772		0.00728	2		1.77928	98			
1.713		0.00833	2		1.72133	98			1.773		0.00726	1		1.78026	99			
1.714		0.00831	2		1.72231	98			1.774		0.00725	2		1.78125	98			
1.715		0.00829	2		1.72329	98			1.775		0.00723	2		1.78223	98			
1.716		0.00827	2		1.72427	98			1.776		0.00721	1		1.78321	99			
1.717		0.00825	3		1.72525	98			1.777		0.00720	2		1.78420	98			
1.718		0.00823	1		1.72623	99			1.778		0.00718	2		1.78518	98			
1.719		0.00822	2		1.72722	98			1.779		0.00716	1		1.78616	99			
1.720		0.00820	2		1.72820	98			1.780		0.00715	2		1.78715	98			
1.721		0.00818	2		1.72918	98			1.781		0.00713	1		1.78813	99			
1.722		0.00816	2		1.73016	98			1.782		0.00712	2		1.78912	98			
1.723		0.00814	2		1.73114	98			1.783		0.00710	2		1.79010	98			
1.724		0.00812	2		1.73212	98			1.784		0.00708	1		1.79108	99			
1.725		0.00810	1		1.73310	99			1.785		0.00707	2		1.79207	98			
1.726		0.00809	2		1.73409	98			1.786		0.00705	2		1.79305	98			
1.727		0.00807	2		1.73507	98			1.787		0.00703	1		1.79403	99			
1.728		0.00805	2		1.73605	98			1.788		0.00702	2		1.79502	98			
1.729		0.00803	2		1.73703	98			1.789		0.00700	1		1.79600	99			
1.730		0.00801	2		1.73801	98			1.790		0.00699	2		1.79699	98			
1.731		0.00799	1		1.73899	99			1.791		0.00697	1		1.79797	99			
1.732		0.00798	2		1.73998	98			1.792		0.00696	2		1.79896	98			
1.733		0.00796	2		1.74096	98			1.793		0.00694	2		1.79994	98			
1.734		0.00794	2		1.74194	98			1.794		0.00692	1		1.80092	99			
1.735		0.00792	2		1.74292	98			1.795		0.00691	2		1.80191	98			
1.736		0.00790	1		1.74390	99			1.796		0.00689	1		1.80289	99			
1.737		0.00789	2		1.74489	98			1.797		0.00688	2		1.80388	98			
1.738		0.00787	2		1.74587	98			1.798		0.00686	2		1.80486	98			
1.739		0.00785	2		1.74685	98			1.799		0.00684	1		1.80584	99			
1.740		0.00783			1.74783				1.800		0.00683			1.80683				
A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.			

A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.
1.800	2	0.00683	2	2	1.80683	98	98	1.860	2	0.00595	1	2	1.86595	99	98
1.801	26 1	0.00681	1	1 49	1.80781	99	25 1	1.861	26 1	0.00594	1	1 49	1.86694	99	25 1
1.802	76 2	0.00680	2	2 98	1.80880	98	74 2	1.862	76 2	0.00593	2	2 98	1.86793	98	74 2
1.803		0.00678	1		1.80978	99		1.863		0.00591	1		1.86891	99	
1.804		0.00677	2		1.81077	98		1.864		0.00590	1		1.86990	99	
1.805		0.00675	1		1.81175	99		1.865		0.00589	2		1.87089	98	
1.806		0.00674	2		1.81274	98		1.866		0.00587	1		1.87187	99	
1.807		0.00672	1		1.81372	99		1.867		0.00586	1		1.87286	99	
1.808		0.00671	2		1.81471	98		1.868		0.00585	2		1.87385	98	
1.809		0.00669	2		1.81569	98		1.869		0.00583	1		1.87483	99	
1.810		0.00667	1		1.81667	99		1.870		0.00582	1		1.87582	99	
1.811		0.00666	2		1.81766	98		1.871		0.00581	2		1.87681	98	
1.812		0.00664	1		1.81864	99		1.872		0.00579	1		1.87779	99	
1.813		0.00663	2		1.81963	98		1.873		0.00578	1		1.87878	99	
1.814		0.00661	1		1.82061	99		1.874		0.00577	2		1.87977	98	
1.815		0.00660	2		1.82160	98		1.875		0.00575	1		1.88075	99	
1.816		0.00658	1		1.82258	99		1.876		0.00574	1		1.88174	99	
1.817		0.00657	2		1.82357	98		1.877		0.00573	2		1.88273	98	
1.818		0.00655	1		1.82455	99		1.878		0.00571	1		1.88371	99	
1.819		0.00654	2		1.82554	98		1.879		0.00570	1		1.88470	99	
1.820		0.00652	1		1.82652	99		1.880		0.00569	2		1.88569	98	
1.821		0.00651	2		1.82751	98		1.881		0.00567	1		1.88667	99	
1.822		0.00649	1		1.82849	99		1.882		0.00566	1		1.88766	99	
1.823		0.00648	2		1.82948	98		1.883		0.00565	1		1.88865	99	
1.824		0.00646	1		1.83046	99		1.884		0.00564	2		1.88964	98	
1.825		0.00645	1		1.83145	99		1.885		0.00562	1		1.89062	99	
1.826		0.00644	2		1.83244	98		1.886		0.00561	1		1.89161	99	
1.827		0.00642	1		1.83342	99		1.887		0.00560	2		1.89260	98	
1.828		0.00641	2		1.83441	98		1.888		0.00558	1		1.89358	99	
1.829		0.00639	1		1.83539	99		1.889		0.00557	1		1.89457	99	
1.830		0.00638	2		1.83638	98	99	1.890		0.00556	1		1.89556	99	99
1.831	51 1	0.00636	1	1 90	1.83736	99	50 1	1.891	51 1	0.00555	2	1 99	1.89655	98	50 1
1.832		0.00635	2		1.83835	98		1.892		0.00553	1		1.89753	99	
1.833		0.00633	1		1.83933	99		1.893		0.00552	1		1.89852	99	
1.834		0.00632	2		1.84032	98		1.894		0.00551	1		1.89951	99	
1.835		0.00630	1		1.84130	99		1.895		0.00550	2		1.90050	98	
1.836		0.00629	1		1.84229	99		1.896		0.00548	1		1.90148	99	
1.837		0.00628	2		1.84328	98		1.897		0.00547	1		1.90247	99	
1.838		0.00626	1		1.84426	99		1.898		0.00546	1		1.90346	99	
1.839		0.00625	2		1.84525	98		1.899		0.00545	2		1.90445	98	
1.840		0.00623	1		1.84623	99		1.900		0.00543	1		1.90543	99	
1.841		0.00622	2		1.84722	98		1.901		0.00542	1		1.90642	99	
1.842		0.00620	1		1.84820	99		1.902		0.00541	1		1.90741	99	
1.843		0.00619	1		1.84919	99		1.903		0.00540	2		1.90840	98	
1.844		0.00618	2		1.85018	98		1.904		0.00538	1		1.90938	99	
1.845		0.00616	1		1.85116	99		1.905		0.00537	1		1.91037	99	
1.846		0.00615	2		1.85215	98		1.906		0.00536	1		1.91136	99	
1.847		0.00613	1		1.85313	99		1.907		0.00535	2		1.91235	98	
1.848		0.00612	1		1.85412	99		1.908		0.00533	1		1.91333	99	
1.849		0.00611	2		1.85511	98		1.909		0.00532	1		1.91432	99	
1.850		0.00609	1		1.85609	99		1.910		0.00531	1		1.91531	99	
1.851		0.00608	2		1.85708	98		1.911		0.00530	1		1.91630	99	
1.852		0.00606	1		1.85806	99		1.912		0.00529	2		1.91729	98	
1.853		0.00605	1		1.85905	99		1.913		0.00527	1		1.91827	99	
1.854		0.00604	2		1.86004	98		1.914		0.00526	1		1.91926	99	
1.855		0.00602	1		1.86102	99		1.915		0.00525	1		1.92025	99	
1.856		0.00601	2		1.86201	98		1.916		0.00524	1		1.92124	99	
1.857		0.00599	1		1.86299	99		1.917		0.00523	2		1.92223	98	
1.858		0.00598	1		1.86398	99		1.918		0.00521	1		1.92321	99	
1.859		0.00597	2		1.86497	98		1.919		0.00520	1		1.92420	99	
1.860		0.00595			1.86595			1.920		0.00519			1.92519		
A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.

A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.
1.920	2	0.00519	I	2	1.92519	98		1.980	I	0.00452	I	I	1.98452	99	99
1.921	26	0.00518	I	1	1.92618	99	25	1	1.981	51	1	I	1.98551	99	50
1.922	76	0.00517	I	2	1.92717	98	74	2	1.982		0.00450	I	1.98650	99	
1.923		0.00515	I		1.92815	99		1.983		0.00449	I		1.98749	99	
1.924		0.00514	I		1.92914	99		1.984		0.00448	I		1.98848	99	
1.925		0.00513	I		1.93013	99		1.985		0.00447	I		1.98947	99	
1.926		0.00512	I		1.93112	99		1.986		0.00446	I		1.99046	99	
1.927		0.00511	I		1.93211	99		1.987		0.00445	I		1.99145	99	
1.928		0.00510	I		1.93310	98		1.988		0.00444	I		1.99244	99	
1.929		0.00508	I		1.93408	99		1.989		0.00443	I		1.99343	99	
1.930		0.00507	I		1.93507	99		1.990		0.00442	I		1.99442	99	
1.931		0.00506	I		1.93606	99		1.991		0.00441	I		1.99541	99	
1.932		0.00505	I		1.93705	99		1.992		0.00440	I		1.99640	99	
1.933		0.00504	I		1.93804	99		1.993		0.00439	I		1.99739	99	
1.934		0.00503	I		1.93903	99		1.994		0.00438	I		1.99838	99	
1.935		0.00502	I		1.94002	98		1.995		0.00437	I		1.99937	99	
1.936		0.00500	I		1.94100	99		1.996		0.00436	I		2.00036	99	
1.937		0.00499	I		1.94199	99		1.997		0.00435	I		2.00135	99	
1.938		0.00498	I		1.94298	99		1.998		0.00434	I		2.00234	99	
1.939		0.00497	I		1.94397	99		1.999		0.00433	I		2.00333	99	
1.940		0.00496	I		1.94496	99		2.000	10	0.00432	I	10	2.00432	990	990
1.941		0.00495	I		1.94595	99		2.01	51	0.00422	I	1	2.01422	991	149
1.942		0.00494	I		1.94694	98		2.02	151	0.00413	I	2	2.02413	990	248
1.943		0.00492	I		1.94792	99		2.03	251	0.00403	I	3	2.03403	991	347
1.944		0.00491	I		1.94891	99		2.04	351	0.00394	I	4	2.04394	991	446
1.945		0.00490	I		1.94990	99		2.05	451	0.00385	I	5	2.05385	991	545
1.946		0.00489	I		1.95089	99		2.06	551	0.00377	I	6	2.06377	992	644
1.947		0.00488	I		1.95188	99		2.07	651	0.00368	I	7	2.07368	991	743
1.948		0.00487	I		1.95287	99		2.08	751	0.00360	I	8	2.08360	992	842
1.949		0.00486	I		1.95386	99		2.09	851	0.00352	I	9	2.09352	992	941
1.950	I	0.00485	I	I	1.95485	98	99	2.10	951	0.00344	I	10	2.10344	992	1040
1.951	51	0.00483	I	1	1.95583	99	50	2.11	1051	0.00336	I	1	2.11336	992	1139
1.952		0.00482	I	1	1.95682	99		2.12	1151	0.00328	I	2	2.12328	993	1238
1.953		0.00481	I		1.95781	99		2.13	1251	0.00321	I	3	2.13321	992	1337
1.954		0.00480	I		1.95880	99		2.14	1351	0.00313	I	4	2.14313	993	1436
1.955		0.00479	I		1.95979	99		2.15	1451	0.00306	I	5	2.15306	993	1535
1.956		0.00478	I		1.96078	99		2.16	1551	0.00299	I	6	2.16299	994	1634
1.957		0.00477	I		1.96177	99		2.17	1651	0.00293	I	7	2.17293	993	1733
1.958		0.00476	I		1.96276	99		2.18	1751	0.00286	I	8	2.18286	994	1832
1.959		0.00475	I		1.96375	99		2.19	1851	0.00280	I	9	2.19280	993	1931
1.960		0.00474	I		1.96474	99		2.20	1951	0.00273	I	10	2.20273	994	2030
1.961		0.00473	I		1.96573	98		2.21	2051	0.00267	I	1	2.21267	994	2129
1.962		0.00471	I		1.96671	99		2.22	2151	0.00261	I	2	2.22261	994	2228
1.963		0.00470	I		1.96770	99		2.23	2251	0.00255	I	3	2.23255	994	2327
1.964		0.00469	I		1.96869	99		2.24	2351	0.00249	I	4	2.24249	995	2426
1.965		0.00468	I		1.96968	99		2.25	2451	0.00244	I	5	2.25244	994	2525
1.966		0.00467	I		1.97067	99		2.26	2551	0.00238	I	6	2.26238	995	2624
1.967		0.00466	I		1.97166	99		2.27	2651	0.00233	I	7	2.27233	994	2723
1.968		0.00465	I		1.97265	99		2.28	2751	0.00227	I	8	2.28227	995	2822
1.969		0.00464	I		1.97364	99		2.29	2851	0.00222	I	9	2.29222	995	2921
1.970		0.00463	I		1.97463	99		2.30	2951	0.00217	I	10	2.30217	995	3020
1.971		0.00462	I		1.97562	99		2.31	3051	0.00212	I	1	2.31212	995	3119
1.972		0.00461	I		1.97661	99		2.32	3151	0.00207	I	2	2.32207	996	3218
1.973		0.00460	I		1.97760	99		2.33	3251	0.00203	I	3	2.33203	995	3317
1.974		0.00459	I		1.97859	99		2.34	3351	0.00198	I	4	2.34198	996	3416
1.975		0.00458	I		1.97958	99		2.35	3451	0.00194	I	5	2.35194	995	3515
1.976		0.00457	I		1.98057	99		2.36	3551	0.00189	I	6	2.36189	996	3614
1.977		0.00456	I		1.98156	98		2.37	3651	0.00185	I	7	2.37185	996	3713
1.978		0.00454	I		1.98254	99		2.38	3751	0.00181	I	8	2.38181	996	3812
1.979		0.00453	I		1.98353	99		2.39	3851	0.00177	I	9	2.39177	996	3911
1.980		0.00452	I		1.98452	99		2.40	3951	0.00173	I	10	2.40173	996	4010
A.	P.P.	B.	d.	P.P.	C.	d.	P.P.	A.	P.P.	B.	d.	P.P.	C.	d.	P.P.

A.	P.P.	B.	d.	P.P.	C.	d.	P.P.
2. 40	4	0.00173	4	4	2.40173	996	996
2. 41	1261	0.00169	4	1249	2.41169	996	1251
2. 42	3762	0.00165	4	2498	2.42165	996	3742
2. 43	6263	0.00161	4	3747	2.43161	996	6233
2. 44	8764	0.00157	4	4996	2.44157	997	8724
2. 45		0.00154	3		2.45154	996	
2. 46		0.00150	3		2.46150	997	
2. 47		0.00147	3		2.47147	997	
2. 48		0.00144	3		2.48144	996	
2. 49		0.00140	4		2.49140	997	
2. 50		0.00137	3		2.50137	997	
2. 51		0.00134	3		2.51134	997	
2. 52		0.00131	3		2.52131	997	
2. 53		0.00128	3		2.53128	997	
2. 54		0.00125	3		2.54125	997	
2. 55	3	0.00122	3	3	2.55122	997	997
2. 56	1671	0.00119	2	1332	2.56119	998	1671
2. 57	5012	0.00117	2	2665	2.57117	997	4992
2. 58	8343	0.00114	3	3997	2.58114	997	8313
2. 59		0.00111	3		2.59111	998	
2. 60		0.00109	2		2.60109	997	
2. 61		0.00106	3		2.61106	998	
2. 62		0.00104	2		2.62104	998	
2. 63		0.00102	2		2.63102	997	
2. 64		0.00099	3		2.64099	998	
2. 65		0.00097	2		2.65097	998	
2. 66		0.00095	2		2.66095	998	
2. 67		0.00093	2		2.67093	998	
2. 68		0.00091	2		2.68091	998	
2. 69		0.00089	2		2.69089	998	
2. 70	2	0.00087	2	2	2.70087	998	998
2. 71	2511	0.00085	2	1499	2.71085	998	2511
2. 72	7512	0.00083	2	2998	2.72083	998	7492
2. 73		0.00081	2		2.73081	998	
2. 74		0.00079	2		2.74079	998	
2. 75		0.00077	2		2.75077	998	
2. 76		0.00075	2		2.76075	999	
2. 77		0.00074	2		2.77074	998	
2. 78		0.00072	2		2.78072	998	
2. 79		0.00070	2		2.79070	999	
2. 80		0.00069	2		2.80069	998	
2. 81		0.00067	2		2.81067	999	
2. 82		0.00066	2		2.82066	998	
2. 83		0.00064	2		2.83064	999	
2. 84	I	0.00063	2	I	2.84063	998	999
2. 85	5011	0.00061	2	1999	2.85061	999	5001
2. 86		0.00060	2		2.86060	999	
2. 87		0.00059	2		2.87059	998	
2. 88		0.00057	2		2.88057	999	
2. 89		0.00056	2		2.89056	999	
2. 90		0.00055	2		2.90055	998	
2. 91		0.00053	2		2.91053	999	
2. 92		0.00052	2		2.92052	999	
2. 93		0.00051	2		2.93051	999	
2. 94		0.00050	2		2.94050	999	
2. 95		0.00049	2		2.95049	999	
2. 96		0.00048	2		2.96048	999	
2. 97		0.00047	2		2.97047	998	
2. 98		0.00045	2		2.98045	999	
2. 99		0.00044	2		2.99044	999	
3. 00		0.00043	2		3.00043	999	
A.	P.P.	B.	d.	P.P.	C.	d.	P.P.

A.	P.P.	B.	d.	P.P.	C.	d.	P.P.
3. 00	I	0.00043	I	I	3.00043	999	999
3. 01	5011	0.00042	I	11999	3.01042	999	5001
3. 02		0.00041	I		3.02041	999	
3. 03		0.00041	O		3.03041	1000	
3. 04		0.00040	I		3.04040	999	
3. 05		0.00039	I		3.05039	999	
3. 06		0.00038	I		3.06038	999	
3. 07		0.00037	I		3.07037	999	
3. 08		0.00036	I		3.08036	999	
3. 09		0.00035	I		3.09035	999	
3. 10		0.00034	O		3.10034	1000	
3. 11		0.00034	I		3.11034	999	
3. 12		0.00033	I		3.12033	999	
3. 13		0.00032	I		3.13032	999	
3. 14		0.00031	O		3.14031	1000	
3. 15		0.00031	I		3.15031	999	
3. 16		0.00030	I		3.16030	999	
3. 17		0.00029	O		3.17029	1000	
3. 18		0.00029	I		3.18029	999	
3. 19		0.00028	I		3.19028	999	
3. 20		0.00027	O		3.20027	1000	
3. 21		0.00027	I		3.21027	999	
3. 22		0.00026	I		3.22026	999	
3. 23		0.00025	O		3.23025	1000	
3. 24		0.00025	I		3.24025	999	
3. 25		0.00024	O		3.25024	1000	
3. 26		0.00024	I		3.26024	999	
3. 27		0.00023	O		3.27023	1000	
3. 28		0.00023	I		3.28023	999	
3. 29		0.00022	O		3.29022	1000	
3. 30		0.00022	I		3.30022	999	
3. 31		0.00021	O		3.31021	1000	
3. 32		0.00021	I		3.32021	999	
3. 33		0.00020	O		3.33020	1000	
3. 34		0.00020	I		3.34020	999	
3. 35		0.00019	O		3.35019	1000	
3. 36		0.00019	O		3.36019	1000	
3. 37		0.00019	I		3.37019	999	
3. 38		0.00018	O		3.38018	1000	
3. 39	3	0.00018	I	3	3.39018	999	9997
3. 4	16671	0.00017	3	13332	3.40017	9997	16671
3. 5	50012	0.00014	3	26665	3.50014	9997	49992
3. 6	83343	0.00011	3	39997	3.60011	9998	83313
3. 7	2	0.00009	2	2	3.70009	9998	9998
3. 8	25011	0.00007	2	14999	3.80007	9998	25001
3. 9	75012	0.00005	2	29998	3.90005	9998	74992
4. 0	I	0.00004	I	I	4.00004	9999	9999
4. 1	50011	0.00003	I	19999	4.10003	9999	50001
4. 2		0.00003	O		4.20003	10000	
4. 3		0.00002	O		4.30002	10000	
4. 4		0.00002	I		4.40002	9999	
4. 5		0.00001	O		4.50001	10000	
4. 6		0.00001	O		4.60001	10000	
4. 7		0.00001	O		4.70001	10000	
4. 8		0.00001	O		4.80001	10000	
4. 9		0.00001	I		4.90001	9999	
5. 0		0.00000			5.00000		
A.	P.P.	B.	d.	P.P.	C.	d.	P.P.

H ü l f s t a f e l

zur Berechnung der Logarithmen.

Zahl	Brigg. Logarithme	Natürl. Logarithme	Zahl	Brigg. Logarithme	Natürl. Logarithme	
Potenzen der Zehn	10 ⁰	1,00000 00000 00000 0	2,30258 50929 94045 7	1	0,00000 43429 23104 5	0,00000 99999 50000 3
	10 ¹	2,00000 00000 00000 0	4,60517 01859 88091 4	2	0,00000 86858 02780 3	0,00001 99998 00002 7
	10 ²	3,00000 00000 00000 0	6,90775 52789 82137 1	3	0,00001 30286 39028 5	0,00002 99995 50009 0
	10 ³	4,00000 00000 00000 0	9,21034 03719 76182 7	4	0,00001 73714 31849 8	0,00003 99992 00021 3
	10 ⁴	5,00000 00000 00000 0	11,51292 54649 70228 4	5	0,00002 17141 81245 2	0,00004 99987 50041 7
	10 ⁵	6,00000 00000 00000 0	13,81551 05579 64274 1	6	0,00002 60568 87215 4	0,00005 99982 00072 0
	10 ⁶	7,00000 00000 00000 0	16,11809 56509 58319 8	7	0,00003 03995 49761 4	0,00006 99975 50114 3
	10 ⁷	8,00000 00000 00000 0	18,42068 07439 52365 5	8	0,00003 47421 68884 0	0,00007 99968 00170 7
	10 ⁸	9,00000 00000 00000 0	20,72326 58369 46411 2	9	0,00003 90847 44584 2	0,00008 99959 50243 0
	10 ⁹					
Einer	1	0,00000 00000 00000 0	0,00000 00000 00000 0	1	0,00000 04342 94264 8	0,00000 09999 99500 0
	2	0,30102 99956 63981 2	0,69314 71805 59945 3	2	0,00000 08685 88095 2	0,00000 19999 98000 0
	3	0,47712 12547 19662 4	1,09861 22886 68109 7	3	0,00000 13028 81491 4	0,00000 29999 95500 0
	4	0,60205 99913 27962 4	1,38629 43611 19890 6	4	0,00000 17371 74453 3	0,00000 39999 92000 0
	5	0,69897 00043 36018 8	1,60943 79124 34100 4	5	0,00000 21714 66980 9	0,00000 49999 87500 0
	6	0,77815 12503 83643 6	1,79175 94692 28055 0	6	0,00000 26057 59074 2	0,00000 59999 82000 1
	7	0,84509 80400 14256 8	1,94591 01490 55313 3	7	0,00000 30400 50733 2	0,00000 69999 75500 1
	8	0,90308 99869 91943 6	2,07944 15416 79835 9	8	0,00000 34743 41957 9	0,00000 79999 68000 2
	9	0,95424 25094 39324 9	2,19722 45773 36219 4	9	0,00000 39086 32748 3	0,00000 89999 59500 2
Erste Decimale	1	0,04139 26851 58225 0	0,09531 01798 04324 9	1	0,00000 00434 29446 0	0,00000 00999 99995 0
	2	0,07918 12460 47624 8	0,18232 15567 93954 6	2	0,00000 00868 58887 7	0,00000 01999 99980 0
	3	0,11394 33523 06836 8	0,26236 42644 67491 1	3	0,00000 01302 88325 0	0,00000 02999 99955 0
	4	0,14612 80356 78238 0	0,33647 22366 21212 9	4	0,00000 01737 17758 0	0,00000 03999 99920 0
	5	0,17609 12590 55681 2	0,40546 51081 08164 4	5	0,00000 02171 47186 7	0,00000 04999 99875 0
	6	0,20411 99826 55924 8	0,47000 36292 45735 6	6	0,00000 02605 76611 0	0,00000 05999 99820 0
	7	0,23044 89213 78273 9	0,53062 82510 62170 4	7	0,00000 03040 06030 9	0,00000 06999 99755 0
	8	0,25527 25051 03306 1	0,58778 66649 02119 0	8	0,00000 03474 35446 5	0,00000 07999 99680 0
	9	0,27875 36009 52829 0	0,64185 38861 72394 8	9	0,00000 03908 64857 8	0,00000 08999 99595 0
Zweite Decimale	1	0,00432 13737 82642 6	0,00995 03308 53168 1	1	0,00000 00043 42944 8	0,00000 00100 00000 0
	2	0,00860 01717 61917 6	0,01980 26272 96179 7	2	0,00000 00086 85889 6	0,00000 00199 99999 8
	3	0,01283 72247 05172 2	0,02955 88022 41544 4	3	0,00000 00130 28834 3	0,00000 00299 99999 6
	4	0,01703 33392 98780 4	0,03922 07131 53281 3	4	0,00000 00173 71778 9	0,00000 00399 99999 2
	5	0,02118 92990 69938 1	0,04879 01641 69432 0	5	0,00000 00217 14723 6	0,00000 00499 99998 8
	6	0,02530 58652 64770 2	0,05826 89081 23975 8	6	0,00000 00260 57668 1	0,00000 00599 99998 2
	7	0,02938 37776 85209 6	0,06765 86484 73814 8	7	0,00000 00304 00612 7	0,00000 00699 99997 6
	8	0,03342 37554 86949 7	0,07696 10411 36128 3	8	0,00000 00347 43557 2	0,00000 00799 99996 8
	9	0,03742 64979 40623 6	0,08617 76962 41052 3	9	0,00000 00390 86501 6	0,00000 00899 99996 0
Dritte Decimale	1	0,00043 40774 79318 6	0,00099 95003 33083 5	1	0,00000 00004 34294 5	0,00000 00010 00000 0
	2	0,00086 77215 31226 9	0,00199 80026 62673 1	2	0,00000 00008 68589 0	0,00000 00020 00000 0
	3	0,00130 09330 20418 1	0,00299 55089 79798 5	3	0,00000 00013 02883 4	0,00000 00030 00000 0
	4	0,00173 37128 09000 5	0,00399 20212 69537 5	4	0,00000 00017 37177 9	0,00000 00040 00000 0
	5	0,00216 60617 56507 7	0,00498 75415 11039 1	5	0,00000 00021 71472 4	0,00000 00050 00000 0
	6	0,00259 79807 19908 6	0,00598 20716 77547 5	6	0,00000 00026 05766 9	0,00000 00060 00000 0
	7	0,00302 94705 53618 0	0,00697 56137 36425 2	7	0,00000 00030 40061 4	0,00000 00070 00000 0
	8	0,00346 05321 09506 5	0,00796 81696 49176 9	8	0,00000 00034 74355 8	0,00000 00080 00000 0
	9	0,00389 11662 36910 5	0,00895 97413 71471 9	9	0,00000 00039 08650 3	0,00000 00090 00000 0
Vierte Decimale	1	0,00004 34272 76862 7	0,00009 99950 00333 3	1	0,00000 00000 43429 4	0,00000 00001 00000 0
	2	0,00008 68502 11649 0	0,00019 99800 02666 3	2	0,00000 00000 86858 9	0,00000 00002 00000 0
	3	0,00013 02688 05227 1	0,00029 99550 08998 0	3	0,00000 00001 30288 3	0,00000 00003 00000 0
	4	0,00017 36830 58464 9	0,00039 99200 21326 9	4	0,00000 00001 73717 8	0,00000 00004 00000 0
	5	0,00021 70929 72230 2	0,00049 98750 41651 0	5	0,00000 00002 17147 2	0,00000 00005 00000 0
	6	0,00026 04985 47390 3	0,00059 98200 71967 6	6	0,00000 00002 60576 7	0,00000 00006 00000 0
	7	0,00030 38997 84812 5	0,00069 97551 14273 3	7	0,00000 00003 04006 1	0,00000 00007 00000 0
	8	0,00034 72966 85363 5	0,00079 96801 70564 3	8	0,00000 00003 47435 6	0,00000 00008 00000 0
	9	0,00039 06892 49910 1	0,00089 95952 42836 0	9	0,00000 00003 90865 0	0,00000 00009 00000 0

N a c h r i c h t.

Die Korrektur der Tafeln ist bis zum dreizehnten Bogen vom Verfasser selbst besorgt; bei der sorgfältigsten Durchsicht der Aushängebogen haben sich folgende Fehler gezeigt:

bei log Sin $5^{\circ}28'40''$ statt 8,98982 lese man 8,97982

bei log Cotg $17^{\circ}37'$ — 0,49420 — — 0,49820

Ausserdem bemerke man noch, dass in der Einleitung Seite VIII Zeile 25 beim Winkel $39^{\circ}39'12''$ die 1 der 12'' in einigen Exemplaren nicht gehörig ausgedruckt ist.

Bei den Proportionaltheilen, welche in der zweiten Tafel zu 6 Grad gehören, sind wegen Mangel an Raum die Hunderte weggelassen worden. Dies kann auf keine Weise eine Irrung verursachen, doch wird man wohl thun, bei den Ueberschriften, wo nur äusserst wenig Raum fehlte, um im Drucke die mangelnde Ziffer zu geben, diese an den gehörigen Stellen mit der Feder zu bemerken. Einige andere, jedoch ganz unwesentliche Uebelstände liessen sich bei der Entfernung des Verfassers vom Druckorte nicht vermeiden.

Göttingen
im Oktober 1821.

Johann Heinrich Westphal.

Vom vierzehnten Bogen an sind nachstehende Fehler zu verbessern:

bei 25° Diff. 25 . . . P. P. für $42''$ lese man 17; für $54''$ lese man 22.

Sin $28^{\circ}46'$ und $28^{\circ}47'$ Diff. 24, lese man 23.

— 33 II statt 9.72824 l. m. 9.73824

— 41 13 — 9.81883 — 9.81882

Differenz — . . $\begin{cases} 15 & \text{—} & \dots & 14 \\ 14 & \text{—} & \dots & 15 \end{cases}$

Cotg 41 23 — 0.65497 — 0.65497

Tang 45 0 — 9.00000 — 0.00000

Bog. 21 S. 1 Diff. 42 P. P. für 40 . . . 55,3 55,2

— 21 — 2 . . . 36 80 . . . 28,2 28,8

— 21 — 2 . . . 66 10 . . . 5,1 5,2

— 22 — 3 A = 0,919 . . . B 0,04949 0,04941

0,945 . . . C 0,99166 0,99169

— 22 — 4 . . . 0,970 . . . B 0,04422 0,04421

von 1.000 bis 1.020 l. m. die Charakteristik = 1

— 24 — 3 Diff. 1 . P. P. für 1 . . . 90 99

In der Einleitung:

S. XIX für das rechtseitige sphärische Dreieck $\cos C = - \cos A \cos B$.

S. XX Zeile 15 statt Cotg B, Sin c und Cos c lese man Cotg b, Sin C und Cos C.

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1882-1883

Leipzig, gedruckt bei Johann Gotthilf Neubert.

1841-1842

[illegible][illegible][illegible]

$$\log. \sin. 1'' = 4,68557$$

$$\log. \frac{1}{\sin 1''} = 5,31443$$

$$\log. \pi = 0,49715$$

$$\log. e = 0,43429$$

$$\log. (\log. e) = 9,63778$$

$$\log. 24 \text{ St. } (= 86400'') = 4,93651$$

$$\log. 360' (= 1296000'') = 6,11261$$

Wenn φ nicht über $8'$ und φ'' bedeutet dass φ in Secunden ausgedrückt sein muss, sonst

$$\log. \sin \varphi = \log. (\varphi'' \sin 1'') - \frac{1}{3} \log. \sec \varphi$$

$$\log. \tan \varphi = \log. (\varphi'' \sin 1'') + \frac{2}{3} \log. \sec \varphi$$

$$\psi = 48^{\circ} \quad 8' \quad 45''$$

$$\log. \sin \psi = 9,87207$$

$$\log. \cos \psi = 9,82428$$

$$\tan \psi = 0,04779$$

$$\cot. \psi = 9,95221$$

$$\sec. \psi = 0,17572$$

$$\operatorname{cosec.} \psi = 0,12793$$



Westphal, Johann Heinrich,

Logarithmische Tafeln

Königsberg 1821

4 Math.p. 393 m

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